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AUTHOR Latshaw, Lois L.
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ABSTRACT

The project was designed to assess the learning needs of selected health occupations at the vocational level and to develop guidelines for the establishment and administration of a model for a health occupations continuing education center based upon these needs. Licensed practical nurses, nurses aides, and operating room technicians employed in hospitals or nursing homes were the groups selected as a target population. Learning needs of these groups were identified through a questionnaire survey. Perceptions of learning needs were also obtained from instructional and supervisory personnel. Based on the findings of the survey, it was determined that the extreme diversity of learning needs of these occupational groups required the establishment of a learning center with a flexible approach to programing, rather than the more narrowly defined continuing education center. Guidelines were developed for the planning, implementation, and evaluation of such a center. Contents of the report include: a study of the related literature, basic assumptions about the selected occupational groups, methods and procedures, data analysis, summary, conclusions and recommendations (including the guidelines developed), and a bibliography. Appended are background information of the survey sample and suggested forms for use in the proposed learning center. (Author/RG)

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DEVELOPMENT OF A HEALTH OCCUPATIONS CONTINUING EDUCATION CENTER

Lois L. Latshaw, Ed.D.

Project No. 40-74-D-4

EVANSVILLE VANDERBURGH SCHOOL CORPORATION
SCHOOL OF HEALTH OCCUPATIONS
EVANSVILLE, INDIANA

June 15, 1975

State Board of
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Department of Public Instruction
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ACKNOWLEDGMENT

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The writer is deeply appreciative of the assistance and encouragement received from the faculty and the guidance provided by the Director of the Evansville School of Health Occupations, Miss Joyce Stevens.

L.L.L.

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CHAPTER I

INTRODUCTION

Continuing education has been widely cited to be almost a universal need, and many institutions have rapidly established offerings to try to meet the need. Examination of educational programs in a given city will reveal involvement of a wide variety of sponsoring agencies ranging from high schools, museums and YMCA centers to universities and societies. Even business has joined the endeavor. Xerox Corporation has established its own university, and Betty Crocker has expanded its offerings beyond cooking and sewing.

While many of these programs are geared to personal, social and recreational development, more and more emphasis is being placed on a real need to gain knowledge and useable skills related to the world of work. The educational focus of the country has been changing from degree-seeking orientation to one of job training preparation. This is reflected in the decline in enrollment in colleges and universities and the increase in enrollment seen in two year community colleges, public vocational schools and proprietary institutions.[1] An additional factor in the decline in enrollment in colleges and universities is, of course, the decline in the actual number of youths to be educated. Nevertheless, the trend is unmistakable, and large numbers of youths enter the world of work prepared at the technical-vocational level.

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[1] Hays, Garry D., "Institutional Response to New Educational Realities," address given at the University of Evansville, Evansville, Indiana, April 11, 1974, mim.

In a rapidly changing technological society, initial job training must be augmented by continuous training and retraining if the worker is to remain productive. This is particularly true in the health occupations where new knowledge is translated almost over night into new and more complex techniques of health care.

The need for continuing education in the health occupations at the professional level has long been recognized. The flood of literature on the subject and the large number of program announcements provide ample evidence that most professional groups are highly involved in the growth and development of their practitioners, although there is not much agreement as to the adequacy of the efforts.

Increased movement in the direction of developing continuing education programs in nursing has come from external pressures generated by mandatory educational experiences for re-licensure, institutional accreditation standards related to nursing from the Joint Commission on Hospital Accreditation, and Federal Regulations regarding the eligibility of health care facilities for Medicare and Medicaid funds. The larger hospitals, which have had inservice education departments for years, have been in the forefront in their attempts to meet the educational needs of their personnel.

Although the continuing education needs of registered nurses have been receiving widespread attention, the educational needs of health care workers at the vocational level have fared less well. In hospitals with well developed educational departments some programs at the practical nurse and nurse aide levels have been offered, but frequently these employees have been included in almost a peripheral manner,

attending programs jointly with workers prepared at higher educational levels. Operating room technicians and others with highly specialized areas of interest fail to fit most educational offerings. The licensed practical nurse, the nurse aide and operating room technician are only three examples of occupational groups in the hospital whose learning needs may be inadequately met. In nursing homes and other occupational settings where fewer educational resources are available, it is conceivable that learning needs are met with difficulty, if at all, unless an outside agency becomes involved.

In response to the growing demand for universal health care, the professional services have been augmented increasingly by numbers of personnel prepared at the technical-vocational level. Thompson[2] predicted that by 1975-1976, 3.2 per cent of all those enrolled in vocational education programs will be in health occupations. This does not include, presumably, many workers trained on the job as orderlies, nurse aides and others. In 1971, Roberts[3] reported 231 types of "assistants" in health facilities. As the number of health occupations increases, the need for continuing education increases proportionately.

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[2] Thompson, John F., Foundations of Vocational Education, Prentice Hall, Inc., Englewood Cliffs, New Jersey, 1973, 260 pp.

[3] Roberts, Roy W., Vocational and Practical Arts Education, Harper and Row, New York, 1971, 500 pp.

Statement of the Problem

It seems to be a logical assumption that there are many employees in the health occupations at the vocational level who have continuing education needs. This study was concerned, then, with the educational needs of this large group of health care workers, not only with what their needs are but also with who is, or who should be, meeting them.

A school corporation with a long history of vocational education, including successful basic programs in the health occupations, is brought inevitably to an examination of its potential for participating responsibly in meeting the continuing education needs of health care workers at the vocational level. Hoyt[4] has pointed out that adult education, including vocational education, must be one of the major responsibilities of public education.

The decision of any school to participate in offering continuing education programs cannot be made lightly. Any institution contemplating a move in this direction must be deeply concerned about the needs to be met, the groups to be served, the organizational methods to be established and the institutional capacity to function effectively.

The primary purpose of this project was to develop a model for the establishment and administration of vocational health occupations continuing education centers. However, continuing education exists within a context of needs and learners. The approach selected was to identify the learning needs and the learners and build the model around them.

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[4]Hoyt, Kenneth, and others, Career Education, Olympus Publishing Co., Salt Lake City, Utah, 1974, 238 pp.

Since it would not be possible to study all groups of health care workers practicing at the vocational level in one year, the first phase of the project focussed on three groups. The contributing objectives were as follows:

1. To identify continuing education needs of selected groups in the health occupations; namely, the licensed practical nurse, the nursing assistant and the operating room technician.

2. To determine what needs can be met through vocational education offerings.

3. To establish guidelines for implementing and administering a continuing education program in the health occupations at the vocational level.

Delimitation of the Study and Methodology

The methodology of the study was to identify first the learning needs of the selected occupational groups and then develop a model for a continuing education center appropriate to meet those needs and consistent with the educational resources of a school operating within the framework of a department of adult vocational education in the school corporation system.

The identification of continuing education needs was approached through two perceptual frameworks. The first consisted of the perceptions of learning needs held by the workers themselves, and the second consisted of the perceptions of the learning needs of those workers held by employers. The data were obtained by the use of questionnaires. A complete description of methods and procedures can be found in Chapter IV.

The occupational groups to be studied were delimited to licensed practical nurses, nurse aides and operating room technicians functioning in hospitals and nursing homes. The viewpoints of employers were represented by those registered nurses who supervised their work and those who were responsible for instructing them in the employment situation. Head nurses, operating room supervisors and the instructional staff in hospitals and all registered nurses in charge nurse capacities in nursing homes constituted this aspect of the sample.

The entire sample was further confined to the hospitals and nursing homes located in one city. Because of these delimitations in terms of occupational groups, geographic location, types of health care facilities and supervisory personnel, it was anticipated that there would be some limitations in the generalizations which could be drawn as well as some restrictions in the view provided of continuing education needs in the health occupations at the vocational level. However, the sampling could be expected to reveal the learning needs of three large groups in the prime area the educational agency serves. Extension of the study to include a broader geographic area and other groups and occupational settings could be done at a later date after the first phase was completed.

Definition of Terms

Many of the terms used in the health care field and continuing education have been used in diverse ways. To avoid confusion in the conduct of the study selected terms subject to a variety of interpretations were defined as follows:

Nursing assistant-- a person prepared in a short intensive training program to give bedside nursing care to patients to meet their simple basic needs. Synonym: nurse aide.

Work supervisor-- a registered nurse in a charge nurse capacity who has immediate responsibility for, and knowledge of, the employee's performance.

Vocational level-- learning experiences designed to assist a student to develop that degree of skill and knowledge necessary for successful job entry and/or for continued growth on the job in an occupation requiring less than preparation at the associate degree level in the initial training program.

Continuing education-- any educational offering with specified objectives and qualified instruction to improve the knowledge or skill of a designated worker in a designated role, but not leading to a diploma, a degree or license to practice, or limited to the viewpoint of a single employing agency.

Inservice education-- educational offerings provided in the employment situation to upgrade or maintain the level of practice of designated employees in that specific agency. This excludes regular orientation on job entry. Synonyms: in-agency or in-house education.

Program-- any educational offering designated for a specific purpose to maintain or upgrade the knowledge or skills of a specified group or groups of workers. This may be a lecture, workshop or course depending on the objectives to be achieved.

CHAPTER II

RELATED LITERATURE

Although continuing education in the professions has been discussed for many years, there is little evidence in the literature to suggest that efforts to date have been an unqualified success. Mayhew[1] characterized continuing education as the most recent of curricular reforms, which, although based on valid assumptions, has failed to bring a significant yield of improved practice. His comments were directed toward the fully recognized professions, such as law, medicine and dentistry, but his conclusions find a certain parallelism in nursing and other health care groups.

Any review of continuing education in the health professions is complicated by the fact that there is a lack of agreement on terms. For some educators, continuing education has a distinct definition which clearly differentiates it from inservice education. For others, continuing education is an encompassing term which embraces any and all kinds of ongoing adult learning.

Continuing education has been variously defined as "any significant post-secondary learning experience for which degree credit is not sought"[2] to other definitions which exclude from it certain kinds of learning,

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[1]Mayhew, Lewis B., Changing Practices in Education for the Professions, Southern Regional Education Board, Atlanta, Georgia, 1971, p. 63.

[2]Grogan, Paul, "Introducing the Continuing Education Unit," address given at the National Conference on Continuing Education in Nursing, Madison, Wisconsin, October 21, 1971, mim.

such as that applied to a diploma, a journeyman's skill, a licensable proficiency, or even that concerned with on-going training (inservice education) for a specific job in an employing agency. On-going learning has many purposes, and groups with specific goals tend to accept definitions related to what they are trying to achieve regardless of the extent to which their approach is accepted or rejected by other groups with related but, nevertheless, different objectives. The exclusion of inservice education from continuing education by some groups probably stems from their concern that in-agency education merely perpetuates existing practices without including new knowledge and skills emerging almost daily. If this were true, practice in that institution would quickly become obsolescent.

The definition offered by Syracuse University[3] in their series of monographs on continuing education for health manpower seems to be more flexible and adaptable to various role levels in the health occupations. In their view, continuing education includes training and is concerned with "systematic" efforts of persons already employed in the health occupations to acquire, maintain and develop those abilities, skills, knowledge and attitudes necessary to do their jobs or function more adequately. The kinds of education they felt were consistent with this approach involved changes in attitudes, retraining, acquisition of new knowledge, skills and techniques.

The determination of whether continuing education is different from

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[3] Syracuse University, Fostering the Growing Need to Learn Part I, Project Continuing Education for Health Manpower, contract no. HSM 110-71-147, The Regional Medical Programs Services Department of HEW, 1973, p. XI.

inservice education, or even whether one is a distinguishable part of the other, seems less important than the need for clarification of the objectives for which the learning experiences are developed. An exception to this might be in those situations where legal standards are involved for re-licensure procedures. However, workers whose basic job preparation was quite limited may require a different approach to the maintenance of job competency than those prepared to function at the highest educational levels. The concept that continuing education is needed by workers in direct proportion to the consequences of their decisions and actions would tend to suggest that the lowest occupational levels, such as nurse aides, have less learning needs than the highest occupational levels, such as doctors. A more realistic approach would be to recognize that each occupational group has its learning needs, but these do differ in the nature of the needs and the means appropriate to meet them.

This does not imply that all educational efforts at the vocational level of the health occupations should be concerned merely with performance deficits of an unchanging skill nature that can be remedied by re-training. All workers have needs for cognitive and new skill development as well as enrichment and self-fulfillment experiences. However, it does imply that the educational process at any level must progress through the careful identification of the learning need, analysis of the nature of the need, and finally the planning, implementation and evaluation of carefully selected learning experiences.

Some extensive studies of learning needs have been done at the higher occupational levels in the health care field. In 1958, the Catholic Hospital Association surveyed supervisory and administrative personnel in

their institutions to determine what these employees needed to learn to achieve better job performance. Similarly, in 1965, Pennsylvania State University used research techniques based on questionnaires and interviews to identify the learning needs of administrative, supervisory and professional personnel in 213 hospitals.[4] The needs identified in both these instances were similar.

Even more definitive studies have been made of the educational needs of physicians.[5] A very significant study was conducted in Michigan in 1970. This involved the determination of the attitudes and opinions of physicians about continuing education and the subsequent identification of the characteristics of those physicians who functioned in leadership roles in the learning interchanges which occurred in their groups. The relevance of this study to any continuing education efforts is the fact that a potential learner who does not want to learn simply will not learn.

The University of Wisconsin concerned itself with developing continuing education programs to meet the individual needs of physicians in 1971. Those patient-problems most often encountered by physicians were identified, and examinations were then administered to physicians to determine the extent of their knowledge in these problem areas. Consultants then structured learning experiences to help each individual physician with his particular learning needs. This study introduces the idea of assessment of job competence as the basis for determining educational needs.

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[4]Syracuse University, op. cit., p. 18.

[5]Syracuse University, op. cit., p. 19.

When the objectives of continuing education are directed toward improved practice, at least part of the process of identifying learning needs must be concerned with evaluation of job performance. For physicians this evaluation has moved toward self-assessment programs because they are primarily independent practitioners. While it is true that self-perceived learning needs are important, it is also true that self assessment is difficult. At the professional level independent study to remove deficits is expected to follow self-appraisal. However, total reliance on self-appraisal and self-education, even at the professional level, fails to recognize the fact that the individual is often less likely to be aware of his own deficits. He also may be less aware of new knowledge and skills introduced into his field than are the educators and experts in large universities and medical centers. Consequently, even at the highest occupational levels a varied approach to continuing education is needed rather than reliance on one method.

It is even less likely that this approach to performance assessment and improvement would be effective at the vocational levels. Gardner[6] has indicated that the final goal in continuing education is to have each individual assume responsibility for continuing his own education. This may be a realistic goal at the professional levels, but it seems unrealistic where the vocational level of workers is concerned. Learning opportunities are not as available to them as they are in the professions, and they have not been exposed to the techniques of self-assessment and self-learning. Many need to learn to learn.

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[6] Syracuse University, op. cit., p. 137

One of the most recent and detailed reviews of important continuing education activities for health manpower was conducted by Syracuse University.[7] The report dealt with learning needs and the programs devised for physicians, cardiologists, pharmacists, osteopaths and others. The purpose of the study was to describe the conceptual framework within which continuing education takes place and to assist educators working in this area to avoid existing problems and to engage in innovative and successful program development.

The successes, failures and methods of continuing education in the professions are of interest to educators working with the health occupations at the vocational levels, but understanding the problems of the professional groups does not implicitly prepare one to understand the other level. Unfortunately, few if any studies have been done on the vocational level of health care workers, and little has been written. Their learning needs are usually acknowledged briefly in surveys of health manpower, but no attempts have been made to study their needs in depth.

In considering the needs of this group in more detail, it would be wise to review the problems that have been encountered in developing effective continuing education programs in professional nursing. Similar difficulties might be expected at the vocational level of nursing because of the relatedness of the jobs and the contiguity in the working environment.

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[7]Syracuse University, A Report of Some Significant Activities in Continuing Education for Health Manpower in the United States, Department of HEW, Regional Medical Programs Services, July, 1973, 111 pp., micro.

Continuing Education in Nursing

The nature of the problems encountered in continuing education in nursing is very complex, and the difficulties are evident in the educational efforts within health care institutions (inservice education) as well as in the efforts of outside agencies. Although many questions could be asked to elicit problems, the following seem particularly pertinent:

1. Who attends educational programs and why?
2. How are learning needs determined and experiences planned?
3. How is the new knowledge or skill acquired used in practice?
4. What record is kept of educational experiences and how is it used?
5. How can program effectiveness be determined?

In nursing there is just as much confusion about what continuing education is as there is in other areas. The American Nurses' Association interpreted continuing education in nursing as consisting of "planned learning experiences beyond a basic nursing education program." It further clarified this by denoting that the objectives of such learning should be to enhance nursing practice and improve health care.[8] The American Nurses' Association also identified three avenues of continued learning; namely, formal degree oriented classes, short term courses and independent study.[9] Failure to mention inservice education, which has been a significant factor in staff development for a long time, raises

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[8] American Nurses' Association, "Standards for Continuing Education in Nursing," Journal of Continuing Education in Nursing 5, no. 3:32-34, May-June, 1974.

[9] Heikkinen, Connie D., "Continuing Education and Staff Development," Journal of Continuing Education in Nursing 5, no. 2:18-20, March-April, 1974.

the question whether it can be considered a legitimate part of continuing education. This issue has become particularly important in those states which already have mandatory learning experiences for re-licensure.

Arizona offers no credit toward the licensure procedure for attendance at inserivce programs; the North Dakota Nurses' Association recognizes inservice education programs if approved by the Continuing Education Approval Committee; Texas recognizes all in-agency staff development learning except job orientations. Implicit in these positions is a question about standards or quality and the introjection of some degree of control. Arguments could be offered for all these positions, but the question whether inservice programs designed simply to maintain the state of practice in a given agency can be said to enhance nursing, even if it does improve practice, arises again and again. The answer must lie in the quality and objectives of any educational offering, rather than a narrow definition of terms. Inservice education programs in hospitals frequently have a scope which takes them beyond the parameters of what could be strictly called inservice.

A further suggestion for clarification came from Wolanin[10] who felt that there are possibly four types of continuing education in nursing; specific job related content, professional enrichment leading to professional activity, multidisciplinary information, and personal enrichment. In this system continuing education credit could be awarded for all types as a record keeping device, but credit for re-licensure or re-certification could be required of a certain type, or spread among the four types.

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[10]Wolanin, Mary Opal, "Factors Leading to Effectiveness of Continuing Education Programs," Journal of Continuing Education in Nursing 4, no. 6: 14-19, November-December, 1973.

It would seem inevitable that any agency offering educational programs could award continuing education credit, but somehow there must be standards for those programs which are designed to meet licensure requirements. It follows, then that somewhere there will probably be someone who will make a judgment concerning what programs will be recommended as meeting those requirements. Any agency embarking on a concerted continuing education effort involving licensable occupations should be prepared to participate in this kind of control even though it might well come at some point in the future when state licensure laws are modified.

If evidence of participation in continuing education offerings becomes used increasingly for recommendations for employment, requirements for certification or re-licensure, or criteria for promotion, attendance could become almost universal, at least for some occupational groups. This would result in more educational agencies becoming involved in continuing education because the number of present offerings could not begin to meet the need. Although programs given by outside agencies have increased greatly, the major learning source for many nurses and most of the health occupations at the vocational level has been the employing agency.

The larger hospitals spend considerable amounts of money staffing their educational departments and presenting programs. Although major emphasis is usually placed on the professional level, many do offer some programs for the vocational levels. In some cases, programs are attended jointly by a variety of employees. If there is a mixed group, content selected for the highest educational level present may be inappropriate for the others; if structured for the lowest level, boredom results

for some. This is a typical problem in any kind of education with classes of mixed ability. This does not infer that mixed classes should be completely avoided, because interaction between different groups of employees can achieve very important educational objectives. However, in many cases the mixture is a matter of expediency instead of sound educational planning. Even though programs are repeated several times usually the members attending each session are too great to permit active participation, and the end result is a loss of learning.

Enthusiasm for attending inservice programs often does not run high in spite of the fact that classes are offered on duty or compensated time. Where attendance is voluntary, Thomas[11] has suggested that programs are not well attended. Where attendance is compulsory, there are still absences often ascribed to work demands. Although work demands are often heavy and provide valid reasons for lack of attendance, observations on nursing units in hospitals fail to show that scheduled programs are kept in mind and that attendance is carefully planned for by employees. It is possible that workers perceive continuing education as periodic programs they should attend, but the relationship of the learning opportunity to them and their jobs has not been sufficiently developed for them to fully understand the intent of the effort. If nothing different is expected of them after attendance, they feel the programs are unimportant.

If the educational offering is presented by an outside agency, selected personnel from health care institutions are sometimes sent and

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[11]Thomas, Lauraine, "Prescriptive Education," Nursing Outlook 21, no. 5: 450-452, July 1973.

at least partially subsidized. In working with health care professionals in continuing education at the University of California, Medearis[12] has reported that substantial numbers of participants don't know why they have been sent or what is expected of them on their return. Nevertheless, many nurses exhibit enthusiasm for attending outside programs, but many fail to relate the learning experience to their area of practice. The going seems more important than the learning for some. A few writers have expressed the concern that the establishment of mandatory learning for re-licensure may cause the educational effort of many nurses to further degenerate into an end in itself rather than a means to improve practice. If the observations of Medearis are generally true, then this is indeed a valid fear. The lack of interest in some situations as well as the failure to properly appraise and use learning experiences may be related to the ways in which learning needs are determined and the state of practice.

If learning needs, program objectives and instructional content are not carefully identified, the remarkable amount of educational materials available may tempt educators to schedule films or slides on the basis that they sound interesting or seem pertinent to a need. These programs often fail to be relevant to the viewers. If the visual aid is to result in a real change in behavior, the desired change must be identified in advance, pertinent to the practice situation and capable of implementation.

Continuing education programs will not have much effect unless they are pertinent to the educational needs and the learning can be implemented in practice. For this reason, continuing education cannot be the

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[12]Medearis, Naomi Domer, "You can Help it Happen," Journal of Nursing Administration 3, no. 1:12-13, January-February, 1973.

responsibility of educational personnel alone. A close relationship between teacher, learner and the work supervisor must be developed if learning is to result in improved health care. The separation of nursing education and nursing service was instituted in nursing long ago with adverse effects. The present attempts to move these two branches of nursing back into contact is ample evidence that effective teaching and learning in health care must be job-related. This applies to continuing education as well if the objective of the learning is to be improved health care.

How, then, are learning needs of nurses to be determined? Often program planners identify learning needs on their own initiative. The first continuing education programs offered by the Regional Medical Programs, including some nursing programs, were based solely on what the experts felt were high priority learning needs. The result was that offerings were fragmented and not pertinent to the learning needs of many participants. Since 1970 emphasis has been placed on programs designed to meet local needs.

There are three aspects of learning needs which must be considered in establishing programs in nursing. The first of these is related to what leading nurse educators and practitioners say ought to be the state of practice. Failure to consider this aspect of learning needs could result in an obsolescent state of practice. However, total reliance on this point of view results in programs which have a low degree of relevance for the participants in many cases because that which is taught is frequently not accepted for implementation in the service agency.

The second aspect consists of the perceptions of learning needs from the work supervisors' point of view. Although this has face validity, in actual practice many difficulties arise. If a learning need is perceived, all to often the assumption is made that an inservice program is needed. Not all learning needs must be met in an organized teaching situation.[13] Many inadequate performances can be corrected by on-the-job supervision, but unfortunately the acceptance of the teaching role has not been readily undertaken by most nurses. Learning needs of workers are not amenable to on-the-job correction unless there is someone to teach and agreement on what is to be taught.

Unfortunately, shifting job roles has been occurring so rapidly, particularly in the larger health care institutions, that worker adjustment is always behind schedule. This rapid shift is compounded by the fact that long endorsed practices in nursing at the leadership level have never been effectively implemented. Thomas[14] has indicated that continuing education in nursing cannot be effective unless standards of practice are developed. Although considerable work toward this goal has been done by nursing associations, the fact is that a cultural lag persists between theory and practice. Job descriptions in many institutions fail to reflect the real nature of the nurse's responsibilities in today's health care facilities. If job descriptions are not specific, clearly reflecting standards of performance, it follows that evaluation by the work supervisor will also be too generalized to permit analysis of learning needs.

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[13]Mager, Robert F., and Pipe, Peter, Analyzing Performance Problems or "You Really Oughta Wanta," Fearon Publishers, Belmont, California, 1970, 111 pp.

[14]Thomas, op. cit.

The upward shift in job roles in nursing is illustrated by the kinds of responsibilites that nurses assume whether they are prepared to assume them or not. It has been said that nurses are typically employed at one level above that for which they have been prepared. Registered nurses prepared at the baccalaureate level are employed in teaching and administrative roles. Registered nurses prepared at the associate degree level are expected to be head nurses or team leaders. Each upward shift is accompanied by changes in the successive levels. Now licensed practical nurses are finding that employer expectations require that they function as team leaders, a role for which their basic training program does not prepare them.

The apparent answer would be to conduct continuing education programs to prepare the workers to meet the new responsiblitiies. The licensed practical nurse, for example, should have a course in team leading. However, the team leading role has long been advocated by professional nursing but never fully implemented in practice. There is no agreement on what a team leader does or how she does it, at least at the practice level. The head nurse can clearly see that the new team leader has learning needs. However, the learning needs would be difficult to meet either through in-house education or through program offerings from outside agencies because the role has not been clearly defined in the work situation. Any educational department can do little more than teach about team leading in general hoping that something will prove helpful. However, the conflict between what the learner learns and tries to implement and what the head nurse may want done can be very great.

The dilemmas in planning nursing care, team leading and teaching and supervision of others, which have long plagued registered nurses, are

passed on to the next level of practice unsolved. Can continuing education make up the performance deficits under these circumstances? Continuing education, in and of itself, cannot remove problems which essentially reside in the decision-making levels in practice.

The third aspect of identification of learning needs consists of the workers' perceptions of their needs. If the employment situation reflects role confusion, the worker may have difficulty perceiving what his real educational needs are. Nevertheless, the employee's perceptions of learning needs should always be considered in planning educational programs. In spite of this, it is not always easy to elicit these felt needs. Coordinators of institutional educational programs are often disappointed when they seek program ideas from personnel and find that none is forthcoming. On the other hand, the supervisory level is often equally reluctant to identify what they feel is needed learning.

One of the outstanding difficulties in continuing education in nursing is the lack of reconciliation among all three of these perceptions of learning needs. There are differences of opinion about which should be prepotent over the others. Cantor[15] linked the question of attendance at learning programs with the question of determination of learning needs. In her view, the decision to attend a program should not be left to the learner if the learning experience is determined to be necessary for the assurance of adequate health care for the consumer. This idea is compatible with her belief that those most qualified to determine what kind of care should be given should have the responsibility for determining the learning needs of the staff. The fact is that perceptions of learning

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[15]Cantor, Marjorie, "Standard 5, Education for Quality Care," Journal of Nursing Administration 3, no. 1:49-54, May-June, 1973.

needs held by employee and supervisor may be different. This was demonstrated by Thomas and Heick[16] in a related study involving nurse practitioners and nurse educators in Iowa. They found significant differences in the perceptions of practitioners compared to those of the educators.

The reactions of employees to forced attendance at programs geared to educational needs identified by others may range from hostility to passivity because the need as portrayed fails to coincide with their needs as they perceive them. Needless to say, the passive or hostile learner does not learn. Hutchinson[17] recommended that the best approach is to involve the educator and learner together in identifying needs. Program planners must remember that the characteristics of adult learners result in responses to learning different from the typical, immature student.

The difficulties experienced in hospitals maintaining effective staff development programs may also be related to the lack of expertise in the teaching staff. Many have not been prepared to work effectively with adult learners and to understand the scope, methods and purposes of continuing education. Added to this aspect of the problem is the removal of the teaching staff from close contact with the work situation. This withdrawal prevents them from keeping current with the state of practice and interacting with the workers so that the learning needs identified and the teaching attempted are reality based rather than theory based.

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[16]Thomas, Barbara, and Heick, Merle, "A Survey of Continuing Education Needs," Journal of Continuing Education in Nursing 4, no. 3:26-31, May-June, 1973.

[17]Syracuse University, Fostering the Growing Need to Learn Part I, Project Continuing Education for Health Man-Power, Contract no. HSM 110-71-147, The Regional Medical Programs Services Department of HEW, 1973 pp. 146-147

Actually, they are placed in a rather ambiguous situation which reduces any impact they might have on the quality of care being rendered. Regardless of how much they know about what is new in nursing they will be ineffective as teachers unless they also know what is going on in their own institutions and have a legitimate means of influencing practice. These same difficulties could be even greater for outside agencies offering continuing education programs.

There are other indicators of learning needs than the three perceptual frameworks discussed. Dickinson and Vernor[18] suggested including performance assessment records, reactions of the consumers of health care, personnel records, audits of care, and high incidence of staff turnover, complaints and grievances. These would be only indirectly available to outside program planners. Again, this calls attention to the need for a climate in which the education-based educator can work closely with the agencies from which program participants come.

Eventually, one must come to the conclusion that there are a variety of learning needs, a variety of practitioners with individual differences, a variety of employment contexts, and a variety of ways of meeting learning needs. This variety may be accentuated rather than diminished as more and more products of training programs recognizing individual differences enter the labor market.

The problems in developing effective continuing education cannot be solved simply by offering more and more programs. A wide variety of program offerings does not insure that learning experiences of a high quality will be available to meet all learning needs. Some system of organization

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[18]Syracuse University, op. cit., p. 186

and assessment of programs is clearly needed if educational resources are to be used well. In the State of Indiana offerings in continuing education in nursing were found to be fragmented, duplicated and uncoordinated.[19] A statewide organization with representation from 14 regions was established, and in 1973 this group prepared standards and assessment factors for reviewing continuing education nursing courses.[20] The 14 standards which were described were to be used voluntarily by agencies presenting nursing programs.

As the title of the publication suggests, the intent was not only to insure the quality of programs but also to prepare a measurement device for recording the amount of participants' involvement in continuing education. The basic unit of measurement chosen was the "continuing education unit", also called CEU. The continuing education unit is defined as "ten contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction and qualified instruction."[21]

Some states already having mandatory learning requirements for relicensure of nurses use this system for establishing licensure criteria, and a similar procedure was anticipated in Indiana. This has been delayed during a moratorium on licensure revisions pending further study.

However, the definition of the continuing education unit is broad

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[19]Careley, Charlotte A., "Development of a Plan for a Statewide System of Continuing Education in Nursing," Journal of Continuing Education in Nursing 5, no. 1:13-19, January-February, 1974.

[20]Indiana Statewide Planning Committee for Continuing Education in Nursing, Indiana Standards and Assessment Factors for Reviewing Continuing Nursing Education Courses for Continuing Education Units, July, 1973, 4 pp., mim.

[21]National Task Force on the Continuing Education Unit, The Continuing Education Unit, Washington, D.C., October, 1970, mim.

and applicable within any adult education context. Both the assessment factors identified by the Indiana Statewide Planning Committee, with some modifications, and the unit system of measurement devised for nursing could be equally useful in assessing courses offered for other health occupations. An agency offering continuing education courses at any level has a responsibility not only for the quality of the programs but also for maintaining a system of records that will be adequate to attest to the nature and quality of the learning. If quality control and record keeping are not carefully planned, both may leave something to be desired.

Since the licensed practical nurses have learning needs similar to those of registered nurses, and they do attend some programs jointly, it would be important that programs for this group meet standards similar to those advocated by the Statewide Planning Committee. The committee specifically recommended that continuing education for licensed practical nurses be offered through the Indiana Vocational Technical College and the vocational education system, but standards must be applied just as rigorously regardless of the place of offering.

It seems unlikely that a statewide organization would be developed for continuing education at the vocational level in the health occupations, partly because utilization of support personnel varies from one locality to another. However, if agencies offering such education could agree on using basic standards for records and programs, the quality of the programs would more likely be insured, and the records could be expected to facilitate any purpose for which they might be used.

In the meantime, each agency presenting educational programs should assume full responsibility for offering the best learning experiences

it can develop based on principles of learning and conducted by qualified teachers. In the absence of state requirements, the obligation of the agency must be to the participants directly who have the right to receive learning experiences commensurate with the time and money they invest.

Even though the primary purpose of continuing education in nursing is the improvement of the quality of care rendered, there is little real knowledge available about the impact of a great deal of effort expended in education. In fact, there is rarely a definitive evaluation of the quality of nursing care. Physicians do conduct medical audits, but nursing has not yet implemented effective nursing audits. Thus, lack of accurate information about the existing quality of care added to vaguely stated job descriptions and imprecise appraisal of work performance creates a confused environment for implementing continuing education.

Administrators in health care institutions have a right to expect that the educational dollars they spend will yield more improvement in job performance than they currently are receiving. Certainly, the cost of conducting more and more programs for all levels of the health occupations could become prohibitive for all but a few institutions.

This means that all educational programs, whether they involve institutional dollare or not, must undergo a searching evaluation of their effectiveness.

The traditional questionnaire for evaluation purposes completed by participants at the conclusion of a program has long been questioned as a true indicator of the effectiveness of instruction. Nevertheless, if carefully developed, such a form can elicit the immediate reactions of

the learners to content and teaching methods. This will always be important for the instructor. Writing exercises can always be used to determine mastery of content. Dauria[22] reported that other indices used in the Continuing Education Department in the School of Nursing, Medical College of Virginia, were increasing attendance, the return of participants, requests for repeat programs, and invitations from hospitals to participate in agency activities.

Perhaps it can be assumed that, if the foregoing are true, the offerings are effective. However, they are indirect evidence at best. If an agency embarks on a program of on-going continuing education, some means of evaluation should be built into each offering whereby actual assessment of the effect on practice can be done, assuming that the nature of the program was designed to influence practice. If objectives for programs are developed in behavioral terms, this would probably not be as difficult as might first be believed. This kind of evaluation would also bring instructors into the practice situations which could not fail to be beneficial to their own growth and effectiveness as teachers. Implicit in this statement is the willingness of health care personnel to establish this kind of relationship with instructional personnel.

While this kind of evaluation might not be required for every program offered, the amount of follow-up that instructors would be required to do would appreciably increase the cost of educational offerings presented by outside agencies, and it must be considered in developing guidelines

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[22]Dauria, Anne M., "Evaluating Continuing Education," Journal of Continuing Education in Nursing 4, no. 4:18-19, July-August, 1973.

for the establishment of a continuing education center. While evaluation of the effect of learning on practice by instructors would be impracticable if the programs attended are located a long distance from the participants' place of employment, it would be an important facet of locally offered programs.

Although not all the difficulties encountered in developing continuing education in professional nursing would be equally present in developing continuing education at the vocational level, there is sufficient similarity to alert potential sponsoring agencies to already existing problems or to future problems.

CHAPTER III

BASIC ASSUMPTIONS ABOUT CONTINUING EDUCATION FOR SELECTED OCCUPATIONAL GROUPS

It must be assumed that the need for continuing education in the health occupations at the vocational level is just as pressing as it is at the professional level if continuing education is defined as the efforts to acquire, maintain and develop those abilities, skills, knowledge and attitudes necessary to do a job or function more adequately. No training program prior to job entry can completely prepare a worker to function in today's health care field, and this is particularly true in the short training courses typical at the vocational level. Furthermore, supervision of support groups has frequently been described as less than adequate. Under these circumstances it is likely that abilities once adequate at any level may decline unless alternative means are developed to insure worker competencies. When the need for new knowledge and skills is imposed on an already inadequate performance base, the problem is compounded at the vocational level.

The larger hospitals with educational departments have included licensed practical nurses, nurse aides and operating room technicians in their schedule of offerings, but the same problems recounted in developing programs for registered nurses have been experienced at this level. Blurring of job roles, lack of attendance, lack of time, inability or failure to apply learning, failure to identify and meet learning needs--all these factors suggest that possibly educational needs are not being

adequately met. Certainly, this is not because of lack of effort on the part of agency instructional personnel, but an educational department responsible for the orientation of new personnel, basic training programs for some groups and the continued growth and development of all must inevitably set priorities and do what seems most urgent.

On the other hand, small health care facilities without educational departments must try to meet educational needs through the efforts of those employed at the supervisory level. Presumably, employees of these institutions could have an even larger unmet need.

Licensed Practical Nurses

Learning opportunities for this group are apparently more available than for nurse aides and operating room technicians. As a group they are more highly organized, and the Federation of Licensed Practical Nurses has been effective in verbalizing their needs and offering programs. However, programs are often located out of the city and are not accessible to many of them. Because their educational needs are similar to those of registered nurses they often attend inservice programs jointly with them or they are invited to participate in joint outside programs.

Licensed practical nurses are growing rapidly as an entity in nursing. Basic nursing programs in practical nursing are typically one year in length, and they prepare their nurses essentially for direct patient care and performing nursing functions in stable, semi-complex and complex nursing situations with appropriate supervision. In the realities of the world of work they find themselves in many occupational settings for which the basic program does not prepare them.

For example, as was pointed out previously, licensed practical nurses function as team leaders in some institutions. They assume charge nurse roles in many nursing homes and psychiatric hospitals. On the basis of license renewal in 1971, investigators found 1007 employed in industry.[1] Of the 266 of these surveyed, 65% had not had any preparation in occupational health. Other areas in which they function are doctors' offices, school health departments, and visiting nurses' associations.

Woods[2] reported that many nurses feel that the functions of licensed practical nurses and registered nurses are basically the same. It is true that the role of the licensed practical nurse is changing due to demands of employment practices. However, if more is demanded of them, then educational opportunities should be available to them to help them meet their job responsibilities. Some of this is coming from federally supported programs. The Council of Practical Nursing[3] of the National League for Nursing has a contract to provide training in 50 states to improve the nursing practice of 1250 licensed practical nurses employed in nursing homes.

Some improvement in the quality of practice could derive from more effective implementation of career ladders in nursing for those licensed practical nurses who wish to become registered nurses. However, this does not negate the immediate need for continuing education programs to help those in specific locales as they adjust to an increasing scope of

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[1]Lee, Jane A., Herzog, Ruth R.: and Morrison, John H., Licensed Practical Nurses in Occupational Health--An Initial Survey, US Department of HEW, Publication No. 74-102, NIOSH, 1974, 54pp.

[2]Woods, Lucille A., "Continuing Education a Reality of LPN/LVN'S," Nursing Care, vol. 7, no. 3:27-28, March, 1974.

[3]HEW Contract HSM 110-73-457, Health Resources Administration, Department of HEW, reported in Council of Practical Nursing News, 1974.

job demands, because revisions in basic curricula to prepare practical nurses for a greater variety of roles seems impracticable.

Practical nurses in some states already face mandatory learning requirements for re-licensure, although this is not yet true in Indiana.

Nurse Aides

In general, few programs are offered by outside agencies for nurse aides as a group. In the larger hospitals, the educational departments usually conduct their own basic training programs and provide some in-service education offerings specifically for them or arrange programs for joint attendance with other nursing personnel. A few nursing homes conduct their own training programs. However, it is not really known how adequately the learning needs of this group are met.

The responsibilities of nurse aides have been broadened in scope in both hospitals and nursing homes beyond the traditional ministering to simple personal hygiene needs of the sick. Treatments of increasing complexity are assigned to them, and they are expected to participate on the nursing team often without real preparation for this role. In spite of a lack of training, the adequacy of the direct care rendered to the patient depends in a large measure on the competence of the nurse aides. Their direct contact with patients is greater than that of any other health care workers.

Federal regulations also affect some of the nurse aides working in nursing homes. For example, if they are required to administer medications, they must be specifically trained for this function if federal funding is involved.

It can only be inferred that the educational needs are there and that efforts in varying degrees are being expended to meet them. Questions remain unanswered about the exact nature of learning needs and how they can best be met.

Some assumptions have been made in the past that nurse aides are not highly motivated to learn. However, in the work situation they are usually found to be eager to learn about their patients and the problems they have. They respond readily to learning opportunities that are practice and job-related, but less well to abstract theory. These characteristics are relatively typical of adult learners.

Whether basic training programs for nurse aides could be interpreted as continuing education is a question, although not a significant problem. If one were to apply the definition of continuing education in nursing, it might be excluded if training were offered prior to job entry. If a training program is needed for the experienced but untrained nurse aides, it would have to build upon what they already know. What they learn or mis-learn in apprenticeship learning is the ill-defined area. The selected content of a program for experienced aides might not be drastically different from the content of a basic program for job entry, but the approach to learning would be different. The individual differences would undoubtedly be extensive. However, such a program could be defined as continuing education according to some definitions.

It is conceivable that there is need in any given area for a basic training program, or re-training program, for experienced nurse aides, a basic training program prior to initial job entry and a continuing education program for the currently employed, particularly in those agencies which do not maintain their own educational staff.

As was pointed out previously, basic training programs offered by an outside agency either prior to job entry or after job experience would require a cooperative endeavor between the educational agency and the prospective employing institutions so that adequate supervised clinical practice could be planned.

This approach was used successfully in Rockland County, New York. Perry et al[4] reported that a committee was established to survey the training practices for nurse aides in the area. A program was then planned and offered by a central agency with cooperation by inservice departments of participating health care facilities. The program was effective and on-going. The potential in this approach for conserving educational resources, improving the quality of care and generating interinstitutional contact is unlimited.

Operating Room Technicians

The educational needs of this group of health care workers are even less well known. They work in hospitals in sequestered areas in a highly technical, specialized field. Since they are less visable to the hospital at large, there may be a tendency to overlook them. They are becoming well organized in their association, and it shows concern for the continuing education needs of its constituents.

The programs offered by their association are less numerous but usually well planned and executed, sometimes in association with operating room nurses. Because of their high degree of specialization, inservice

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[4]Perry, Alice, et al, "Birth and Growth of an Idea," American Journal of Nursing, vol. 74, no. 3:484-485, March, 1974.

programs involving the hospital nursing staff, which they sometimes attend, could often be expected to have little appeal for them. Significant programs offered by outside agencies are often too far away to permit their attendance.

The job of the operating room technician is also changing. Previously limited to the function of "scrubbing" (directly assisting the surgeon in operative procedures), now they are expected in some situations to "circulate" in an assisting capacity (supervise and assume charge role responsibilities in the operating room). However, learning about new surgical techniques would probably constitute a large part of their educational needs.

Little could be found in a search of the literature related to the specific continuing education needs of this group. The Association of Operating Room Technicians requires 30 clock hours of continuing education per year for certification, and it publishes guidelines and standards for programs.

Potential of a School for a Role in Continuing Education

A school of health occupations conducting health occupations programs at the post-secondary level but within the jurisdiction of a public school corporation finds itself in a unique position in many ways. These factors will have a bearing upon its potential for participating effectively in continuing education.

The school is usually under the jurisdiction of the department of adult vocational education and subject to the same policies, rules and

regulations that are pertinent to that level of education. Unlike other adult vocational programs such as upholstery, automotive repair or others, the offerings in the health occupations are also subject to additional specific requirements related to accreditation standards, clinical practice, evaluation of the educational product in the employment situation, and license and certification procedures.

Consequently, the need to fit in both environments can create adjustment problems, not all of which have been fully solved.

The certification of instructors as vocational teachers is a case in point. In order for the school corporation to receive State and Federal funds all instructors must be certified as vocational teachers as required by the Vocational Education Amendments Act of 1968. Initial certification in the state of Indiana requires a course of 15 clock hours, and re-certification must be completed after two years with a 30 hour course or equivalent academic credits in specified courses.

Full time instructors in the basic health occupations programs probably do not find this a difficult requirement to meet. However, it is an additional educational requirement over and above that which they must meet to maintain their expertise in their own fields, and after the initial class which orients them to vocational education history and philosophy is completed, subsequent re-certification classes fail to be meaningful to a member of the health professions.

Instructors in continuing education who may teach either a very short course, or even longer courses up to 90 or more hours at irregular intervals, may indeed be reluctant to face vocational certification procedures especially when they are fully qualified in their professional

areas. Additional problems are created if experts from out of town are brought in for workshops or short courses. Furthermore, certification of the instructor in continuing education might have to be accomplished after the fact because the schedule of program offerings is the result of a response to identified learning needs. These cannot always be determined far in advance, and the certification courses are usually offered on a specific schedule only twice a year.

Salary schedules may also present a problem. Schedules which are based upon a rigid interpretation of vocational experience may tend to penalize the instructor who may be highly qualified to teach a course by health occupation standards but not qualified to receive a salary commensurate with her abilities according to the rigidly interpreted vocational standards.

If the certification requirement is met by having a program coordinator or director who is certified and bringing in other instructors as resource people to teach the courses, the cost of offering the programs is increased and one gets the uneasy feeling that the letter of the law is being evaded. Engaging qualified personnel to teach may be difficult if more flexibility in management is not permitted.

The question is not whether instructors in the health occupations need additional preparation to teach at the vocational level. Some do, and some do not. Holloway and Bailey[5] pointed out that many vocational teachers in the health occupations are acknowledged experts in their

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[5]Holloway, Lewis, and Bailey, Larry, Developing Teaching Competencies Needed by Educational Personnel in Post-Secondary Health Occupations Programs, Final Report, Vol. I, Iowa University, Iowa City, Division of Health Affairs, August, 1971, 201 pp., micro.

fields but lacking in those special competencies necessary to make them effective as teachers. A more pertinent question in continuing education is whether a specific teacher is inadequately prepared for a specific teaching assignment, and, if she is, would the general vocational teacher certification procedure be adequate to help her develop the needed competencies? In the health occupations the ability of an instructor to conduct a program effectively for continuing education is more properly evaluated in terms of the objectives of the program than general certification standards.

Certainly the cost of maintaining an on-going program in continuing education is an indeterminate variable. It seems unlikely that present faculty could assume the additional burdens of planning, coordinating, implementing and evaluating programs. Therefore, a coordinator or director for continuing education would be needed. If a full time coordinator is employed, this would be a heavy expense even though she would probably be fully occupied, particularly if her expertise qualified her to conduct some needed programs.

While it is assumed that the tuition charged would make each program self-sustaining, a large organizational overhead would be difficult to plan for. Furthermore, the degree of involvement of the school in continuing education is predicated on the existence of educational needs and its ability to meet them. The existence of needs and the potential of a school to meet them both require verification.

There also may be differences in admission policies. The open classes which are desirable in trade or personal fulfillment courses are inappropriate, even impossible, when accreditation agents in the health occupations require otherwise and when the educational products must face

licensure standards and meet employment criteria for performance. Achievement is more clearly prescribed in the health occupations, and the range of permissable deviation is relatively narrow at the lower end of the scale. While continuing education does not face the same problems as the basic programs, there must still be standards of achievement which in turn require more specific admission policies.

Another factor of concern would be the interest of the faculty teaching in the basic programs and their willingness to support continuing education as a proper role for the school. Their involvement in direct teaching could be limited, but their involvement as a faculty in setting standards, consulting and identifying needs and recommending programs should be more extensive. If a faculty were to feel that a role in continuing education for the school were inappropriate, the entire program would lose considerable vitality. Faculty members who work full time with basic students in clinical practice areas are in excellent positions to identify learning needs and suggest programs for personnel working in the various health occupations if they feel it is part of their responsibility to do so.

A successful on-going program in continuing education would be related to the foregoing factors, but the willingness of agencies employing health care workers to cooperate would be of equal importance. Continuing education must be concerned not only with "what is", but also with "what ought to be" and "could be". This implies a need for a relationship in identifying needs, planning and evaluating programs and assisting in the application of knowledge and skills to practice which should be part of a successful program in continuing education. If supervised clinical practice is a part of a specific course, its effectiveness will be directly related to the ability of the employing

agencies and the instructional agency to work together to achieve the objectives. How this can be accomplished in continuing education is as yet an unknown factor.

Some attempts have been made in this kind of cooperative approach to education. For example, in 1974, interested hospitals, health agencies and nursing homes in Aroostook County, Maine[6] banded together to improve service through education. The committee which was established concerned itself with educational needs and objectives, program planning and evaluation.

The kinds of attitudes and roles required in the education and the service agencies to make such a cooperative endeavor possible would have an impact on both. It could lead to a more serious assessment of educational offerings and even a greater willingness to look at the state of practice and make needed changes. For example, if an outside agency is going to teach the employees of an institution how to be team leaders, and the instructor investigates the job description and job performance, it would seem to be inevitable that work supervisors would have to come to some agreement on what is to be taught. Although student nurses may practice team leading in the same institution, this has little if any impact on nursing service. What nursing students do is often assumed to be an educational exercise with little or no relevance to the real world of nursing. However, work supervisors will have a vested interest in their own employees, and this might be an incentive to act.

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[6]Landmark, "Northern Maine RAISE; Regional Approach to Improved Service through Education," Journal of Continuing Education in Nursing 5, no. 2:30-32, March-April, 1974.

If a hospital with an established educational department were to use the educational offerings of an outside agency to augment their own efforts, the role of instructional personnel employed by the hospital might change. Some of the functions which they might assume but which are not now usually an integral part of their jobs could be as follows:

1. Serving as a consultant to agencies offering educational programs to insure the quality of the offerings and the pertinency to existing needs.

2. Maintaining a record of participation in continuing education for each employee.

3. Helping employees to assess their learning needs.

4. Disseminating information to employees about educational offerings available.

5. Working with supervisory levels to identify learning needs based on identified functions and performance assessments.

6. Planning and implementing selected programs which can best be offered in the service situation.

7. Acting as a catalyst to assist employees and work supervisors to use new knowledge and skills.

8. Providing supervised practice for those outside programs requiring this educational experience.

9. Evaluating cooperatively with supervisory personnel and involved instructional agents the effect of teaching on personnel performance.

In agencies, such as nursing homes, not having an educational department these responsibilities would have to be assigned to someone. In return, the educator would have to become a kind of consultant for these agencies. In employment situations where the employee functions alone, as in a doctor's office, the educator would assume these functions working

on a one to one basis with the learners. In any event, continuing education could become a fulcrum for the improvement of care in contrast to the passive role it tends to play today.

One should not become overly optimistic in expecting continuing education to solve all problems in the delivery of quality care to patients. Change comes very slowly, but a new approach to continuing education might be the needed impetus for change to occur. The point that seems to underlie much of the related literature on continuing education is that new approaches are needed in staff development. Whether it is called continuing education, inservice education or some other term is not as important as the degree to which real learning needs are identified and met, and practice is improved.

In spite of the fact that learning needs may exist and a school has potential for meeting the needs, the prospective students must be able to pay for participation in education programs if they are offered outside the employment situation. Probably the health care workers at the vocational level are less well prepared economically to bear the cost of continuing education than those at the professional levels.

Hornback[7] predicted that as demands for continuing education increase newer sources of funding must be obtained. A large part of the cost of maintaining and improving worker effectiveness in the health occupations at present is transferred to the sick because their hospital bills must reflect the expense of operating in-agency educational programs. On the other hand, the learners at low salary scales are in no position to afford

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[7]Hornback, Mary, "Measuring Continuing Education," American Journal of Nursing, 73, no. 9:1576-1578, September, 1973.

attendance at education programs. Although Hornback was speaking of continuing education in nursing, her comments can be applied to other health occupations as well.

Some hospitals do pay a part of the tuition for their employees to attend educational programs. The limitations and availability of this type of funding would vary from one institution to another, and this still tends to put the financial burden on the sick. It would be unlikely that smaller health care facilities could provide this kind of support. Federal and state funds have been available at times for designated purposes, but this type of financial support cannot be counted upon as a constant source. A combination of all these types of financing would probably be necessary if an on-going continuing education program were to be maintained. An example of this might be in the financing of a training program for nurse aides in nursing homes if part of the costs were borne by the students themselves and the nursing homes also underwrote part of the cost.

The thrust of federal, state and regional efforts to improve the quality of health care thus far has been focussed primarily on the professional levels of practice and has involved higher education facilities in continuing education programs. Although this is a justifiable area of concern, it probably means that until problems on the professional levels are solved extensive funding for the educational development of workers at the vocational levels is not likely to be forthcoming. In addition, it suggests that educational agencies other than higher education should concern themselves with the educational needs of the vocational levels.

It is increasingly apparent that planning to improve the continuing education process at all levels of the health occupations should not be delayed, but it is even more apparent that the vocational levels should no longer be excluded from these efforts. The presumption that continuing education for the professional levels would automatically result in improved teaching and supervision of the vocational levels has not been borne out.

A final assumption must be made about the possible scope of involvement of an outside educational agency in working with members of the health occupations at the vocational level. As was previously pointed out, the learning needs of these workers will probably not fall all within the parameters of continuing education if it is defined as planned learning experiences beyond basic preparation for job entry, as it is in nursing. Training and re-training programs may be needed just as urgently.

The effectiveness of the participation of an agency in a community will be directly related to how well it meets existing learning needs, not how well the offerings can be construed to fall within the definitions of continuing education. If the total thrust of the endeavor were systematically developed in terms of the areas of instruction identified by Verner and Cooley,[8] the potential of an outside agency for meeting existing needs could be more clearly established and possibly enhanced because of the greater flexibility in programming it would allow.

In discussing the totality of staff development, these writers identified five areas of instruction: orientation, training, development,

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[8]Syracuse University, op. cit. pp. 178-182.

maintenance and educational support. In this connection, it should be noted that some institutions are using the conceptual approach of staff development rather than inservice education in recognition of the fact that learning opportunities both within and without the hospital and of varying scope are necessary.

An examination of these five components can reveal where an educational agency might participate in providing learning experiences. Orientation functions must occur on the job and remain the responsibility of the employing agency.

Some training could be accomplished in outside programs, but some would obviously be limited to the work situation. For example, teaching basic skills and the requisite knowledge to nurse aides is well within the scope of an educational agency, but the supervised clinical practice which would be a required part of the program would require a joint effort of the service and education agencies. On the other hand, teaching the care and use of a new piece of equipment could be done best in the agency where the equipment is located.

The training component is related to the types of learning previously identified as inservice education, education concerned with specific job competence in an individual employing agency. However, as was pointed out by Woodruff,[9] learning experiences cannot be neatly categorized unless the background of the learner is taken into consideration. The learning of a particular skill may be orientation for one worker because he previously had learned the skill and merely needed to be able to modify

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[9]Tobin, Helen, et al, The Process of Staff Development, C. V. Mosby Co., St. Louis, 1974, p. 84.

it in a new occupational setting. The learning of the same skill might be continuing education for another because it represented new knowledge and skill.

Development is the instructional area comparable to continuing education in this taxonomy because it is concerned with the acquisition of new knowledge, skills and attitudes. In other words, it builds on the existing competencies of the worker to expand his role, improving the quality of patient care and providing more job satisfaction. In this area both the educational agency and the service agency could function independently or cooperatively.

The maintenance area is concerned with instruction necessary to see that new knowledge and skills are implemented in practice. Although it is introduced as a distinct instructional component, it can be seen equally as part of the other components if the success of any educational effort is at least partially defined as the degree to which it influences practice. Maintenance instruction could be either independently conducted by the service agency or cooperatively with the educational agency where appropriate.

The fifth area, educational support, recognizes that the responsibility of professional health care workers for teaching patients and other staff members has been neglected. At the vocational level the teaching role has not been emphasized, but the degree to which even these workers do engage in instructional activities is greater than probably is realized. Whether the activity is teaching patients to cooperate in therapeutic activities or teaching co-workers to function, the involvement of licensed practical nurses, for example, is seen daily. An outside agency could participate effectively in preparing workers for an instructional role.

Classification of any program must be made after the background of the learners is determined and program objectives are established. However, classification is not as important as a serious attempt to identify learning needs and develop an organizational structure flexible enough to create an environment in which these needs can be met.

Any conflict regarding what kinds of educational offerings are appropriate for a continuing education center operated by an outside educational agency could be resolved by designating it to be a "learning center" rather than a "continuing education center". This approach would open the way for participation in training, maintenance, development or educational support functions provided the objectives of any program are within the resources of the center to meet.

CHAPTER IV

METHODS AND PROCEDURES

The purpose of the project was to develop a model for the establishment and administration of vocational health occupations continuing education centers. This required that a survey first be conducted to identify learning needs so that it could be determined within what context the center could function.

Indeed, if no learning needs existed, or if the needs which existed could not be met with vocational education offerings, the establishment of the model would be a futile gesture. The contributing objectives were developed as follows:

1. To identify continuing education needs of selected groups in the health occupations; namely, the licensed practical nurse, the nurse aide, and the operating room technician.

2. To determine what needs can be met through vocational education offerings.

3. To establish guidelines for implementing and administering a continuing education center at the vocational level.

The continuing education needs of workers at the vocational level in the health occupations have not been extensively assessed. The literature extant has tended to deal primarily with the learning needs of the professional members of the health occupations. Consequently, the decision was made to survey learning needs of the target groups through the perceptual view-points of the workers themselves and those who supervise their work or teach them in the employment situation. In this way continuing

education needs could be more extensively identified and related to the states of practice of each of the occupational groups under study.

A few research hypotheses were made as follows:

1. The learning needs of licensed practical nurses as perceived by these nurses themselves and their supervisors would be dissimilar.

2. The learning needs of nurse aides as perceived by them and their supervisors would be dissimilar.

3. The learning needs of licensed practical nurses and nurse aides as perceived by the workers themselves and the institutional instructional staff would be similar.

4. The learning needs of operating room technicians as perceived by the technicians themselves and their supervisors would be dissimilar.

5. The workers in the health occupations employed in hospitals would perceive less unmet needs than their counterparts in nursing homes.

6. The workers with more extensive preparation for basic job entry would perceive more learning needs than those with short preparation courses for job entry.

7. The learning needs identified would range from basic performance deficits to needs for skills and knowledge beyond initial job preparation.

Limitations of the Study

The delimitation of the survey identifying learning needs to licensed practical nurses, nurse aides and operating room technicians prevented a broad review of many other groups in the health occupations practicing at the vocational level. Some of these groups, which would require study in the future, included orderlies, ward clerks, admitting clerks, record room

secretaries, food service supervisors and house keepers. However, the three occupations chosen were deemed to be as many as could be effectively studied in the first phase of the project.

Furthermore, the sample was confined to those workers employed in four hospitals and 13 nursing homes located in one city. This presented limitations of specific kinds. First, the degree to which the identified learning needs of the three occupational groups could be generalized to other hospitals and nursing homes was restricted. This would be particularly true in comparing the workers in large hospitals with education departments with those employed in smaller hospitals in the out-lying area. It was assumed that the findings from the survey of licensed practical nurses and nurse aides in nursing homes would lend themselves more readily to generalizations about employees in other nursing homes because of the similarity in operations and facilities.

Second, because of the greater tendency of vocational workers to seek employment close to the source of their original training than professional personnel do, the survey of needs would be more likely to reflect the educational practices in basic training programs in the one city than a broader geographic sampling would.

Third, learning needs of the three occupational groups in employment situations other than hospitals and nursing homes could not be identified within the methodology of the study. For example, licensed practical nurses employed in private duty nursing, public health nursing and office, school and industrial nursing could be expected to have educational needs different from those identified in the study. However, since all members of the three target groups employed in the participating hospitals and

nursing homes were included in the study, the validity of the findings could be expected to be high for the two occupational settings, although there were four additional nursing homes in the city which did not participate in the study.

Fourth, the employer's viewpoint in hospitals was determined only by surveying registered nurses at the head nurse level and operating room supervisors and the instructional personnel. The degree to which registered nurses in team leading roles in hospitals could add to the findings was problematical. Although they would have closer working relationships with licensed practical nurses and nurse aides than the head nurses in many cases, they would be less likely to have engaged in conscious evaluative techniques in assessing performance than the head nurses would. Therefore, they were excluded from the sample.

In nursing homes, registered nurses in charge nurse capacities could be expected to range from the director of nursing to other supervisory roles depending on the size of the institution. In smaller facilities the director is closely involved with the employees in the care of patients. For this reason all registered nurses with supervisory responsibilities in nursing homes were included in the sample.

Additional limitations must be ascribed to the techniques of data collection. The questionnaires were developed to elicit primarily "yes" and "no" answers because it was felt that a more complex technical instrument, which would lend itself to a statistical analysis of significance of differences, would be more likely to alienate respondents at this vocational level and result in reduced returns. However, the more highly discriminating respondent might have difficulty in selecting from the two alternatives.

Furthermore, the ability of the occupational groups being studied to "see" their own learning needs is often circumscribed by the environment in which they work. Unless employee evaluation techniques had utilized self-examination and encouraged the concept of continuing education as a means to improve practice, the basis of perceived needs could be intellectual curiosity rather than performance based needs. Nevertheless, the felt need to know is a high motivator in adults, and the approach of self perception of needs was justified on this basis.

As in all questionnaires, the truth of responses can influence the validity of the findings, but no reason could be ascertained in advance why the respondents might feel the instrument was threatening and thus resort to dissembling.

The methodology did not include consideration of the quality of care currently being rendered. Although this is a factor of great importance in determining learning needs, it was deemed beyond the scope of this study. However, if perceived needs were examined in light of answers about the state of practice of each group, some inferences could be drawn about the quality of care.

No attempt was made to identify all federal and state rules and regulations which create learning needs through imposition of standards. These were deemed to be externally created. Teaching programs are necessary to meet these standards, but this information can be readily obtained.

Some internal evidence, such as labor turn over and grievances, which might have implications for learning needs was not explored. Employing agencies are usually reluctant to share this kind of information, and it was felt that it would not contribute significantly to the scope of the study.

In spite of the obvious limitations related to sampling and methodology, it seemed that the findings would provide enough initial information to begin to delineate the role the School of Health Occupations could plan in continuing education at the vocational level.

Preliminary Preparation for the Study

Since the project involved sampling of several discrete propulations, considerable preparation was necessary.

Obtaining approval of administrators and participants. The first step was to establish an Advisory Committee for Continuing Education in the School of Health Occupations. Members from various concerned segments of the community were chosen. This was important because of the involvement in continuing education for health occupations of all the hospitals as well as both universities in the city. The members reviewed the proposal for the project, reacted to the nature and intent of the study, and provided suggestions for implementation. They endorsed in principle a role for the School of Health Occupations in continuing education and indicated they felt that the project was feasible without duplicating any present efforts.

Since it was not possible to obtain names and addresses of employees in the target groups for direct mailing of questionnaires, the committee was asked whether they could foresee any problems arising from a distribution of the questionnaires in the employing institutions. They felt the agencies would give approval, but they were not empowered to do so. Therefore, each administrator of the four hospitals and the 17 nursing homes was approached individually to obtain permission.

All four hospitals agreed to participate. However, in the nursing homes two administrators declined to participate, one administrator was not available to give permission, and one administrator gave his permission but no questionnaires were subsequently completed and returned from his institution. The participating agencies thus became four hospitals and 13 nursing homes. Arrangements were made in each institution to distribute questionnaires in a manner satisfactory in that particular work situation. In most cases the director of nursing preferred that her own staff take the questionnaires to the nursing units and distribute them.

Under these circumstances individuals could not be approached individually to request their participation. Therefore, failure of employees to complete and return questionnaires had to be taken as non-compliance because there was no avenue for direct follow-up. However, the study was explained to the directors of nursing, and adequate cover letters were included with each questionnaire. Questionnaires were numbered and records kept of the series sent to each institution so that percentage of returns could be computed.

Developing the instruments. The survey of workers required separate instruments for licensed practical nurses, nurse aides and operating room technicians. These were different in some aspects but correlated so that the same types of information were obtained from each group. The rough drafts of the questionnaires were developed on the basis of the working knowledge of the investigator and the exploration of related literature. The Director of the School of Health Occupations and selected faculty members were then asked to review the instruments, assessing the appropriateness of the level of communications and the adequacy of the items to elicit the desired data.

On the basis of their suggestions final revisions were made. After consultation with the data processing center, the format was also revised to facilitate computer scoring.

Separate questionnaires were similarly developed for work supervisors in hospitals and nursing homes, and one was prepared for instructional personnel in hospitals.

A brief questionnaire was also developed for faculty members of the School of Health Occupations to explore their ideas about continuing education and the possible role in this area they felt the School could play.

All of the instruments required some hand scoring, but the largest part of the data could be handled by the computer. The most significant differences in the composition of the tools used for the workers and the work supervisors were in the items to identify learning needs and to describe the states of practice. A check list of interest areas was provided for the workers because it was felt that they might fail to answer items requiring a free response. Work supervisors were asked to write in learning needs they had identified.

The questionnaires for the work supervisors contained a check list of job functions for the nursing groups so that employer expectations could be compared with the job roles as the workers perceived them. This approach also provided information to describe the states of practice and to compare differences in functions in the two types of health care facilities. At the conclusion of these preparations the study was begun.

Conducting the Study

After the questionnaires were distributed, the potential of the School of Health Occupations for participating in offering continuing education programs was assessed. Even though learning resources would have to be evaluated specifically in terms of meeting learning needs as they were identified, the general facilities, services and teaching resources the School had available must serve as the foundation for an expanded effort in continuing education.

School of Health Occupations educational resources. The School had been operational since the inception of a practical nursing program in 1961. A program in operating room technology was started in 1966. Both of these were at the post-secondary level. In 1970, a course for high school students in health careers was offered by the school system, and the School participated in this program. An advanced course in pharmacology for licensed practical nurses had been presented six times. This was the only existing continuing education offering.

The School of Practical Nursing had been accredited by the Indiana Department of Public Instruction and licensed by the Indiana State Board of Nurses' Registration and Nursing Education. The program in operating room technology was accredited by the Indiana Department of Public Instruction and the Association of Operating Room Nurses. An on-site visit from the accrediting body of the American Medical Association had been requested.

The operation of the School was the responsibility of the Director

of the School of Health Occupations, who was responsible to the Director of Practical Arts, Adult and Vocational Education within the city-county school system.

The entire educational unit was housed in a school devoted to vocational and adult education. Available space for the School of Health Occupations included two offices, a conference room, five classrooms with furniture sufficiently mobile to provide an environment conducive to discussion and group work by adult learners, two practice laboratories with beds and appropriate equipment, a science laboratory and a library. A food service laboratory was housed in the building and available to the School if needed.

The teaching technology equipment included charts, models, skeleton, mannequins and various audio and video tools. The latter consisted of tape recorders, record player, film loop projectors, 16 mm projector, video taping equipment, overhead and opaque projectors, Auto Vance Study Mate, bulletin boards and blackboards. All the Trainex Films and related soft ware used in the basic educational programs would be available for use in continuing education programs.

Supportive secretarial and maintenance services were adequate, although additional secretarial services might be needed if an extensive program of short term courses were offered.

Generally, the educational resources were judged to be adequate to meet the initial needs if a health occupations learning center were established. Additional soft ware might be needed depending on the programs offered. Similarly, the holdings in the library might need to be expanded.

The budget for the existing programs was adequate. However, if short term courses were offered, the budget for personnel, supplies, equipment and other teaching resources would have to be provisionally developed and adjusted as the scope of involvement of the School became clear.

The learning needs of any of the health occupation groups would have to be considered not only in terms of the general resources of the School itself but also in terms of the educational climates and occupational settings within which the respondents worked.

Educational climates in agencies participating in the study. The four hospitals participating in the study consisted of three private general hospitals and one state psychiatric institution. All were considered to be highly education oriented. Table 1 describes the extent of involvement with educational endeavors in the health occupations.

TABLE 1. AFFILIATED EDUCATIONAL PROGRAMS IN HOSPITALS*

Hospital	Nurse aide	Prac. Nurse	Dip. Nurse	A.D. Nurse	B.S. Nurse	M.S. Nurse	O.R. tech.	X-ray tech.	Lab. tech.	Inhal. ther.
A	x	x	x			x		x	x	x
B	x	x		x	x	x	x	x	x	
C	x	x		x	x	x	x	x	x	
D			x	x	x					

*Affiliated programs offered independently or through association with an educational agency.

Hospital A conducted its own diploma program for registered nurses. All of the other educational programs with the exception of the nurse aide

programs, which were independently conducted by each hospital, were offered by local educational agencies and affiliated with the hospitals for clinical practice. The hospitals also had affiliations for the clinical practice of medical students through the extended medical program of Indiana University.

All four of the hospitals also conducted their own staff development programs although Hospital D, the state institution, did not employ personnel in purely instructional capacities. One of the local universities also had an active continuing education program for registered nurses, and it was in the process of expanding offerings into other areas. Table 2 shows the number of employees in the hospitals in the groups being studied.

TABLE 2. NUMBERS OF EMPLOYEES IN TARGET GROUPS IN HOSPITALS

Hospital	Nurse educators	Operating room sup.	Head nurses	L.P.N.'s	Nurse aides	Oper. room tech.
A	1	1	19	70	233	18
B	1	1	15	119	175	9
C	3	1	16	63	205	23
D	0	0	23	3	195	0
Total	5	3	73	255	808	50

The hospitals were very similar in the numbers of employees in the occupational groups which were included in the study. The major difference was found in hospital D which did not have operating room technicians or a special staff development department and was concerned only with

psychiatric care.

The nursing homes, however, presented marked variations in size and complexity of services. These health care facilities ranged in size from 28 beds to 475 beds. Of the 13 long term care facilities participating in the study, one had developed a formal program to train nurse aides open to the public, and four were part of a system of nursing homes with an educational coordinator responsible for staff development. One had an affiliation with an adjacent hospital, and their registered nurses and licensed practical nurses attended the hospital educational programs.

Among these institutions classified as nursing homes in the study a wide range of services was represented. Included were extended care facilities, intermediate care, skilled and non-skilled as well as residential nursing homes. A precise identification of institutional purposes was not germane to the study since learning needs would be identified in any event. Consequently, no attempt was made to differentiate them although this would be an important factor in specific program planning. The distribution of the categories of employees representing the potential sample in nursing homes is shown in Table 3.

TABLE 3. NUMBERS OF EMPLOYEES IN TARGET GROUPS IN NURSING HOMES

Nursing home	Director of nursing	R.N. charge nurses	L.P.N.'s	Nurse aides
A	1	3	5	42
B	1	0	1	11
C	1	3	9	41
D	1	0	1	13
E	1	9	5	29
F	1	9	15	55
G	1	6	15	42
H	1	1	3	19
I	1	0	4	30
J	1	4	8	40
K	1	6	8	50
L	1	1	1	13
M	1	17	6	35
Total	13	59	81	420

Prior to the study a 40% response was set as the expected level of returns. Although this was low, it was judged that probably not more could be expected for several reasons. First, the method of distribution was indirect in deference to the wishes of the institutions involved. This undoubtedly cut down on participation even though direct mailing was used for the return of the questionnaires. Second, the distribution of the instruments had to be done over the Christmas holidays when many

employees were on extended time off duty. Third, the three occupations making up the target groups were inexperienced in participating in a project involving questionnaires.

Although follow-up reminders were posted in the institutions, the response levels were low as predicted. This was particularly true in the cases of licensed practical nurses and nurse aides in the hospitals. Perhaps this could be partially accounted for by the fact that the employees in the hospitals might be less interested because of their own active inservice education programs. If this were true, it might follow that programs offered by an outside agency would find the groups from nursing homes more interested in participating.

However, the purpose of the study was to identify types of learning needs and the numbers interested. The low level of response was not detrimental to the objectives of the study as long as the data were analyzed with no attempt made to generalize to the total populations. There were isolated instances of individuals failing to respond to selected items in the instruments. Whether this was due to lack of knowledge about the question, failure to understand or just to oversight could not be determined. On this basis the study proceeded.

Description of the faculty sample. The faculty of the School of Health Occupations consisted of 13 members. However, only 12 completed questionnaires because one was absent for health reasons. Of those participating in the study, three were instructors in the operating room technology program, one in the preclinical portion and two in the clinical areas. The remaining nine were instructors in the practical nursing program, two in the preclinical portion and seven in the clinical areas

in the hospitals. All faculty members were registered nurses and experienced practitioners as well as instructors.

Description of the instructional and supervisory group sample. No attempt was made to obtain background data on the respondents in the supervisory group. Although this information would have been helpful in analyzing responses, it was felt that they would answer more freely without any reference to personal data. The numbers in each category were as follows:

Hospital inservice educators: One registered nurse educator from each of the three general hospitals responded out of the potential five in the group.

Operating room supervisors: Two supervisors completed the questionnaire. For this reason one hospital was not represented in this aspect of the study.

Hospital head nurses: Questionnaires were sent to 73 head nurses. Of these, 43 were returned giving a 59% response.

Nursing home charge nurses: All 13 directors of nursing completed the questionnaire, but only 23 of the 59 charge nurses did so, giving a total return of 36 or 50% for this group.

Description of the sample of licensed practical nurses employed in hospitals. The sample consisted of 88, or a 35% return, from the target group of 255. Background data can be found in the appendix.[1] The majority were in the 18 to 30 age group, and 73% had been graduated from their schools of nursing in the period from 1970 to 1974. Only two came from out of state schools, and 78 were from the local school of practical

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[1]See Appendix A

nursing. One had been licensed by waiver. Only eight were nearing retirement in the 51 to 60 age group.

In terms of nursing experience before their present jobs, 49 had had none and 13 had one year or less. At the upper range two had 14 to 18 years of experience. In the total group, 29 reported prior experience as nurse aides. Tenure on their present jobs ranged from one year or less to 13 years. The majority had been employed for a period of two to five years, but 19 had been employed for one year or less. All major clinical services were represented as employment areas except the operating room and emergency room. The source of supervision on the job was a registered nurse in 82 of the cases, but three reported that they were supervised either totally or partially by another licensed practical nurse. Only one mentioned the physician as a source of supervision.

The scope of their job functions was described as varied, ranging from direct bedside care of patients to combinations of supervisory activities as follows:

Bedside care	22
Bedside care, functional assignments to treatments or medications	8
Functional assignment to treatments	1
Bedside care, team leading and functional assignments to treatments or medications	3
Bedside care and team leading	39
Team leading	5
Bedside care, team leading and charge nurse on one or more nursing units	9
Team leading or charge nurse	1

The majority (65%) assumed the role of team leader but only a few on a regular basis, which would have implications for job competence and learning in the role.

All but four attended inservice education programs offered by their

current employers either often or occasionally. The four who had never attended could possibly be accounted for by recency of employment since 14 had been employed less than 6 months. However, 32 of the sample had never attended a continuing education program offered by an outside agency. This could possibly be explained by the lack of availability of programs and the fact that 17 of the group had only been graduated in 1974.

The continuing education needs of this group would be affected by all of these factors. The differences in age span, experience and clinical service, recency of basic training and differences in scope of job functions tend to produce a heterogeneity which makes program planning difficult. On the other hand, the fact that all but five came from the same school of practical nursing might ease the educational process because of the homogeneous nature of their backgrounds of preparation, but this would also shield the group from the stimulus to learning which nursing practitioners from other locales often bring.

Description of the sample of licensed practical nurses employed in nursing homes. The sample consisted of 34, or 42% of the target group of 81. Background data can be found in the appendix.[2] The age span and distribution were similar to that found in the hospital sample, with one-half falling in the 18 to 30 age group and five nearing the retirement age. Similarly, 79% had been graduated from their schools of nursing in the period from 1970 to 1974. Of these, 26 had come from the local school of practical nursing, three from other Indiana schools, and five came from out of the state schools.

The nursing experiences before their present jobs ranged from none

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[2]See Appendix A

to 13 years, with six having had one year or less and 10 having had none. Only five reported prior experience as a nurse aide. Tenure in their present jobs ranged from 13 having one year or less to one having nine years.

All were employed in nursing homes, and these ranged in the complexity of care rendered from residential to skilled. The majority reported they were supervised by a registered nurse, and five indicated they were either totally or partially supervised by another licensed practical nurse. The doctor was indicated as a source of supervision by five respondents.

The job functions were diverse, but none reported that they were assigned to functional medications or treatments as their counterparts did in hospitals because in nursing homes these assignments have been increasingly made to nurse aides. The breakdown of reported assignments was as follows:

Bedside care	3
Bedside care and team leading	3
Bedside care and charge of one or more units	4
Bedside care, team leading and charge of one or more units	17
Team leading and charge of a unit	2
Charge nurse of one or more units	5

Only three reported having no team leading or charge nurse responsibilities. The major differences from the hospital sample were in the lack of functional assignments and the high percentage who indicated they carried charge nurse responsibilities for one or more units, 82% in nursing homes as compared with 12% in hospitals.

All had attended inservice education programs offered by their employing agencies either often or occasionally, with the majority reporting

occasional attendance. All but nine had attended outside continuing education programs at least occasionally. This, again, would have to be interpreted in conjunction with the fact that 10 had been employed less than 6 months and five had been graduated in 1974.

The continuing education needs of this group would reflect the same underlying heterogeneous factors found in the hospital group of age, experience, recency of graduation and scope of job functions. The same homogeneous factor was also present since the majority came from the same school of nursing.

Thus, it can probably be assumed that these nursing homes would have the same problems as hospitals in planning effective educational programs for licensed practical nurses and with far less educational resources. In addition, the difficulties encountered in nursing homes could be augmented by the greater shift upward in job roles. As licensed practical nurses assume the more complex responsibilities of charge nurse, the nurse aides assume responsibilities for administering medications and treatments in many cases.

Description of the sample of operating room technicians. The sample consisted of 21 operating room technicians employed in the operating rooms of the three local general hospitals, or a 42% return from the target group of 50. Background data can be found in the appendix.[3] The majority fell in the 18 to 30 age bracket, and none passed the 41 to 50 age group.

The year in which training was completed to become an operating room technician ranged from 1961 to 1974, with seven in the latter group.

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[3] See Appendix B

Apprenticeship training was reported by two, and one of these had had a refresher course of 44 hours. The local school of operating room technology in the School of Health Occupations had been the source of basic training for 16 of the group.

A majority of 15 had had no experience before their present jobs. Tenure in their current employment ranged from 16 with one year or less to one with 15 years.

The scope of job responsibilities was reported as scrubbing for operations by 11, but 10 indicated they both scrubbed and circulated. Only three said both the doctor and registered nurse were sources of supervision with the remaining naming only the registered nurse.

All had attended inservice education programs at their present places of employment, with the majority attending occasionally. Attendance at continuing education programs by outside agencies was less prominent, 10 having attended none. Since six had been graduated in 1974, this could partially explain this lack.

Although the group had less diversity in the nature of their jobs than some groups in the health occupations, the differences in age, recency of graduation and experience would still be important factors in program planning to meet educational needs.

Description of the sample of nurse aides employed in hospitals. The sample consisted of 200, or 25% return from the target group of 808. Since five of these returned the questionnaires unanswered because four were about to retire and one was enrolled in the school of practical nursing, the actual sample was composed of 195 nurse aides. Background data can be found in the appendix.[4] The age span ranged from 18 years

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[4]See Appendix C

to over 60, with 83 in the 18 to 30 group and eight in the group over 60. The number nearing retirement would probably have to be considered as 55 because of the number in the 51 to 60 group who spoke of age and impending retirement. The lowest educational level was represented by one at the fifth grade, and the highest was reported by seven who had completed four years of college. A strong majority (80%) had completed high school or had had some college education.

Experience in nursing before their present jobs ranged from none to 28 years, with 111 having had none and 16 having had one year or less. The nature of this experiential background was extremely varied. Many had, of course, been nurse aides at other institutions, but other experiences noted included that of being student nurse, volunteer, ward clerk, dental technician, Air Force medical technician, hospital corp, WAC, and Navy Corp.

Tenure in their present jobs also covered a large span with 27% employed one year or less and two employed over 20 years. All major clinical services were represented as well as central service, which is concerned with supplies, and the emergency room, which deals primarily with out patients. The source of work supervision as reported was quite varied. The doctor was indicated by 12 respondents as one supervising their work either partially or totally; the licensed practical nurse was mentioned by 41 but in combinations of supervision with others, either doctor or registered nurse. Only one identified her as the only source of supervision. The registered nurse was reported as the only work supervisor by 140. Four respondents stated that a technician supervised their work.

The scope of job responsibilities was primarily concerned with the bedside nursing care of patients with the following exceptions:

Non-direct care, as in central supply	7
Bedside care and functional assignment to medications	1
Bedside care and supervising the work of others	6
Supervising the work of others	1
Non-direct care and supervising the work of others	1

Although the number supervising the work of others was small, it indicated that this group probably has continuing education needs related to this increase in job responsibilities. The nature of the supervision was explained by some to be orienting or helping new nurse aides. Some responses, however, were not clarified.

The majority had attended inservice education offered by their employing agencies, but 28 indicated they had not. In addition, 125 of the group indicated they had never attended a continuing education program offered by an outside agency.

Description of the sample of nurse aides employed in nursing homes. The sample consisted of 183, or a return of 43% from the target group of 420. Background data can be found in the appendix.[5] The age span ranged from 18 to over 60 years as it did in the hospital group with approximately the same percentage in the youngest section. If the respondents in this sample were inclined to early retirement, as it seemed the hospital sample might, 15% of this group in nursing homes would be considered near retirement. The near retirement group in the hospitals comprised 27% of their total.

The lowest educational level achieved was represented by one respondent at the third grade level, and the highest level was reported by one who had completed four years of college. In the total sample, 56% had

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[5]See Appendix C

completed high school or some part of a college program.

Responses to the question about the years of experience in nursing prior to their present jobs ranged from none to 25 years, with 88 having had none and 26 having one year or less. Some had been nurse aides at other institutions, but other experiences reported were student nurse, private duty attendant, dental assistant, licensed child nurse, U.S. Navy in various positions, operating room technician, and psychiatric counselor.

Tenure in their present jobs ranged from one week to 17 years. Although 59 had held their jobs two years or more, 123 had been employed one year or less. The complexity of care these respondents would be required to give would depend on the nature of their employing agencies. These were all long term facilities, but the care ranged from custodial to skilled. The sources of supervision reported on the job were just as varied as those from the hospital sample. Although 41 reported the registered nurse as the sole source of supervision, 59 indicated the licensed practical nurse as the sole source and 71 others mentioned her in combinations with the doctor and the registered nurse. Six indicated the doctor as a source of supervision, and three mentioned the medicine aide. Although three indicated that no one supervised their work, this was considered highly unlikely. As one respondent put it, "We just work together...."

The scope of job responsibilities was primarily concerned with the administration of direct care of patients, just as it was in the hospital situation. However, more proportionately were responsible for some type of supervision of the work of others. The breakdown of those engaged in other than direct care to patients alone was as follows:

Bedside care and medicine aide	2
Bedside care and supervising the work of others	13
Supervising the work of others and orienting new nurse aides	3
Medicine aide	7
Physical therapy aide	1

Attendance at inservice education programs in their current employment situations was reported as either occasional or often by a strong three-fourths of the sample. However, 18 had never attended. Since 11 had recorded their employment periods in terms of weeks, this was not surprising. It was not possible to gather from the data reliable information about attendance at continuing education programs offered by outside agencies. Many did not answer the question, and it seemed that others who did failed to interpret outside programs and workshops as job related continuing education. Examples given of the kinds of programs attended were plays, bingo and movies. For this reason the question was discarded.

All the sample groups presented wide variations in their distinguishing characteristics. Among the licensed practical nurses the most important difference seemed to be in the scope of job responsibilities. More in hospitals were engaged in administration of direct bedside care than in nursing homes. In the nursing homes more tended to carry charge nurse responsibilities than their counterparts did in hospitals. The majority of both groups reported responsibility for the team leading role, with 68% in nursing homes and 53% in hospitals involved at this level.

The nurse aides in the two occupational settings displayed similar ranges in many of the individual characteristics, but a few of the

differences between the two groups tended to carry significant implications for the implementation of educational programs. The basic level of general education covered a wide span in both groups, but only 56% in nursing homes had completed a high school education or higher as contrasted to 80% in the hospital group. Conversely, more in nursing homes carried some degree of responsibility for supervising the work of others and administering medications in functional assignments.

Another factor which would have significance for staff development was the difference in percentages of those who had held their present jobs for one year or less. In the hospital situation this group comprised 27% of the total, and in nursing homes, this group constituted 67% of the sample. At the very least, this could suggest that nursing homes must deal with proportionately a larger group of new employees at any one time, but it also might suggest that the labor turn over in nursing homes is greater. If these two factors were generally true, there could be as a result a great strain on the instructional resources in nursing homes.

The operating room technicians also presented wide variations in the span of individual characteristics. However, the most apparent difference was in the scope of job responsibilities. Approximately one-half reported responsibility for some supervisory activities during operations.

Learning needs for each group would have to be interpreted within the parameters of their descriptive backgrounds just as program planning would have to consider individual differences of participants. The diversity of personal characteristics in each group would tend to predict that there would also be great diversity in the perceptions of learning needs.

CHAPTER V

ANALYSIS OF THE DATA

The instruments were not designed for advanced statistical computations. The development of a model for a continuing education center was primarily concerned with the types of learning needs identified and the numbers of potential participants. Simple frequencies and percentages were adequate to provide the information sought in most instances.

There were scattered instances of failure to respond to selected items in all respondent groups. This was in many cases due to the design of the instruments because the response to some items was contingent upon the response to a previous item. However, failure to respond was noted in other items. In the case of hospital head nurses, some could not respond to selected items about licensed practical nurses, for example, because that category of worker was not employed on their units. On those items for which a response could be expected but none was given, no explanation could be ascertained. If failure to respond were due to lack of knowledge about the question posed, it would suggest that continuing education was not an area of activity familiar to the nurse or that it was one about which she had not thought sufficiently to form an opinion.

There was some evidence in the types of responses made to suggest that among licensed practical nurses as well as nurse aides the concepts and purposes of continuing education as a means of improving job competency were not very well understood.

These instances, while in the minority, carry some implications for the methods of approach used in staff development in the employing agencies. It might be worthwhile for inservice departments to explore the understandings that workers have about the educational efforts that agencies exert. Since a considerable number of each vocational group were relatively new on the job, some lack of understanding could be attributed to this. The responses which did not appear to be relevant to the items were discarded and counted as "no response."

For these reasons, tallies were made on the basis of "yes", "no" and "no response" for each item. Data from each group were analyzed in terms of the perceptions of the workers themselves and the perceptions of the instructional and supervisory personnel in the two occupational settings.

Opinions of Faculty Members about Continuing Education

The data obtained from the School of Health Occupations faculty were analyzed first to determine their perceptions of the learning needs of the occupational groups being studied and their feelings about the involvement of the School in continuing education. The frame of reference for all their responses was the state of practice in the three general hospitals. The psychiatric hospital and nursing homes participating in the study did not come within their purview because the instructors did not practice in any of them.

The ability of each instructor to answer questions about licensed practical nurses, nurse aides and operating room technicians depended

upon the amount of contact they had with them during those periods when they were supervising their students in the institutions. The three instructors working with students in operating room technology confined their observations to this group, and instructors working with practical nursing students responded to those items about practical nurses and nurse aides. Some failed to respond to items where they felt they were not qualified to make a judgment.

Faculty perceptions of learning needs of practical nurses. Nine faculty members completed the section of the questionnaire related to practical nurses. All felt there was a discrepancy between the knowledge and skills of the new graduate practical nurse and the expectations that employers have for her. This confirmed opinions expressed in related literature.

Team leading was viewed by all respondents as the primary expectation which the new graduate could not meet. Other activities mentioned as performance deficits were taping shift reports, taking and processing physicians' orders, functioning in highly specialized areas of care, doing complex treatments and handling intravenous medications. Two respondents expressed the feeling that new graduates were expected to make judgments beyond their competence.

All but one agreed that the hospitals provided orientation and in-service programs to help make up these deficits, but only one indicated these efforts were effective. Three indicated that the registered nurses who supervised these workers on the job did provide instruction; three felt this was variable; two felt they did not; and one failed to respond. A total of six indicated that on-the-job supervision was ineffective.

In spite of the performance inadequacies at the onset of employment, seven of the nine reported that the majority of new practitioners eventually gained the necessary skill and knowledge to function within the demands of the job situation. The estimates of the time lapse before this occurred ranged from one week with concentrated supervision to 3 to 6 months.

The areas of most urgent learning needs seen for the new practical nurse with frequencies of identification were:

Team leading	2
Treatments	2
Pharmacology	2
Basic psychology	1
Organizing work	1
Limitations and legal responsibilities	1
Interpersonal relations	1
Implementing physicians' orders	1
Job orientation	1

Since team leading was viewed as the greatest performance deficit, it was not clear why this was not also identified more specifically as the most urgent learning need. However, consideration must be given to the fact that the faculty members do not believe that team leading is an appropriate role for the licensed practical nurse. On this basis, they probably would be reluctant to identify it as a major learning need. Examination of the needs listed revealed that six of them would apparently be suitable for initial instruction in continuing education programs in the class room, but supervised practice on the job would be required for three of the six. The remaining three would probably require on-the-job supervision and training.

The respondents were divided in their assessment of the adequacy of the inservice programs to meet the learning needs of licensed practical

nurses generally. The most urgent learning needs identified for the experienced practical nurses were almost the same as those for the new practical nurses.

Team leading, leadership, nursing management	3
Pharmacology	3
Intravenous medications	1
New procedures and equipment	1
Job description and orientation	1
Legal aspects of nursing	1

Apparently the learning needs present on employment do not entirely diminish with experience. Since all but two of the respondents felt that the majority of practical nurses do eventually meet employers' expectations for employment, the persistence of the same learning needs could indicate a changing role situation, lack of agreement on role expectations in the employment situation or a discrepancy between performance standards held by the faculty and those acceptable to work supervisors.

Faculty perceptions of learning needs of nurse aides. Two instructors of practical nursing and the three instructors in operating room technology disqualified themselves from answering questions in this section. As a result the response group numbered seven. A few refrained from responding to selected items because of lack of knowledge.

All of the seven respondents agreed that the three hospitals offered basic training programs for their nurse aides and that they were effective. Similarly, each hospital was perceived as offering inservice education programs, but two felt that no programs were specifically structured to meet the learning needs of nurse aides. Six indicated that the programs which were offered were not effective in meeting the learning needs of nurse aides. The reasons given for the inadequacies and their frequencies were:

Programs presented at too advanced a level	3
Lack of attendance	3
Programs too general	1
Subjects not "enticing"	1
Lack of follow up in practice	1

All of these problems were also identified in related literature. It could not be determined whether the respondents actually attended these programs and made their observations on this basis, or whether they were reacting to comments made by nurse aides, or even that they might be reflecting opinions expressed about continuing education in nursing journals. Furthermore, their opinions could be based on observations of performance or comments from patients about the quality of their care.

The areas of educational need suggested by the faculty for nurse aides and their frequencies were:

Reasons underlying practice	2
Aseptic technique	2
Isolation technique	2
Taking vital signs	2
Ethics and interpersonal relations	2
Body mechanics	1
Making patients comfortable on their own initiative	1
Clinical conferences at their level	1
Communications	1
Responses of patients and families to illness situations	1
Care of mouth, hair, etc.	1

All of these areas except clinical conferences, communications and responses of patients and families to illness are usually included in the content of basic training programs for nurse aides. It must be inferred that for this group re-training is a strong need in the view of the faculty. The degree to which added job responsibilities require more and deeper knowledge in these areas could not be assessed. Five areas must be considered performance deficits which could be corrected by on-the-job

supervision, and the other six could be handled by classroom instruction with follow-up supervision on the job.

Faculty perceptions of the learning needs of operating room technicians. The three instructors who were involved with students of operating room technology responded to the section of the questionnaire related to this occupational group. The responses were based on observations made in only the two hospitals in which students received clinical practice.

Two of the three faculty members felt there was no discrepancy between the knowledge and skills of the new operating room technician and employer expectations for this role. The one respondent who did feel there was a discrepancy limited it to specific functioning in the agency. Questions about attempts of the employing agency to make up deficits were thus invalidated.

One did not suggest any programs which could be offered to meet learning needs; one urged practice, not teaching; and the third suggested clinical inservice programs and an overview of basic techniques. Responses to these items would suggest that these faculty members felt the continuing education needs of this group were for skill training and specialized knowledge which would be best acquired in the actual job situation.

Potential role of the School in continuing education. Although nine of the 12 faculty respondents felt that licensed practical nurses, nurse aides and operating room technicians had continuing education needs which the hospitals were not likely to meet, there was less agreement on whether the School of Health Occupations could effectively participate in offering programs. Table 4 shows the distribution of responses to this question.

TABLE 4. POSITIVE AND NEGATIVE RESPONSES OF THE FACULTY TO INVOLVEMENT OF THE SCHOOL IN CONTINUING EDUCATION

Occupational group	Affirmative responses	Negative responses	No responses	Uncertain or didn't know
Licensed practical nurses	8	0	2	2
Operating room technicians	5	1	3	3
Nurse aides	6	1	3	2

The instrument did not ascertain the basis of faculty opinions. If they anticipated having the same educational resources extended over a wider field to include continuing education offerings, their feelings of uncertainty were understandable. It seemed as though they recognized that the need was there but failed to see how the School could participate effectively even though they felt the School had some responsibility for this area.

The opinions related to faculty perceptions of continuing education needs and the potential role of the School of Health Occupations were as follows:

1. The majority agreed that the three occupational groups in hospitals had continuing education needs not met through presently available educational offerings.

2. There was no agreement concerning the most urgent learning needs of licensed practical nurses, even though team leading was considered the primary performance deficit, but some of those which were suggested could

be met in the class room in a continuing education setting.

3. The learning needs identified by the faculty for nurse aides contained a strong element of re-training although some of them could be met in a continuing education setting.

4. The learning needs of operating room technicians as perceived by those faculty members working closely with them were highly specialized and mostly amenable to instruction in the work situation.

5. The faculty felt that the potential of the School of Health Occupations was more clearly adequate for offering programs in continuing education for licensed practical nurses.

6. Although actual negative responses regarding the involvement of the School in continuing education for the other two groups were few, the "no" responses added to the failures to assess and responses suggesting lack of knowledge indicated uncertainty about broad participation.

Actual suggestions concerning the role of the School in continuing education were diverse. No suggestion appeared more than once, and four faculty members offered none. The nature of the recommendations was both general and specific.

1. Be sure the educational resources are adequate to participate.

2. Offer short programs to sustain interest.

3. Work with hospitals to identify learning needs and coordinate efforts with hospital inservice education departments.

4. Offer programs at appropriate educational levels.

5. Develop programs to meet the educational needs of licensed practical nurses in specialized areas (other than hospitals), such as

nursing homes, doctors' offices and private duty.

6. Offer programs for nurse aides working in various employment situations.

Learning Needs of Licensed Practical Nurses Employed in Hospitals

In order to develop a frame of reference for the learning needs of licensed practical nurses employed in hospitals, the supervisory personnel were asked to complete a check list of job functions. The responses of the head nurses to this check list revealed that the role of the practical nurse is quite varied. The distribution of responses to each item is shown on Table 5. There were failures to respond to individual items ranging from two to four per item.

TABLE 5. FUNCTIONAL AREAS OF PRACTICAL NURSES EMPLOYED IN HOSPITALS AS REPORTED BY WORK SUPERVISORS*

Functions	Yes	No	No response
Administering treatments	40	1	2
Charting	39	1	3
Direct nursing care of patients	38	3	2
Administering medications	38	3	2
Teaching patients and families	36	5	2
Reporting to on-coming shift	33	8	2
Planning nursing care	31	10	2
Reporting to and taking orders from physicians	29	12	2
Evaluating nursing care	27	14	2
Team leading	26	15	2
Supervising the work of others	25	14	4
Teaching personnel	21	19	3
Planning the work of others	17	24	2
Conducting nursing team conferences	12	28	3
Evaluating personnel	8	33	2
Functioning as charge nurse of unit or floor	7	34	2
Functioning as charge nurse of two or more units	4	36	3

*Total of 43 work supervisors in the sample

Although the general scope of job responsibilities reported reflected the same range as that described by the practical nurses themselves, ranging from bedside care to charge nurse roles, it was clear that

variations could be expected from one institution to another and even from one nursing unit to another within an institution.

The functions most clearly in the minority were acting as charge nurse and evaluating personnel. The differences in expectations within a functional role were most evident in team leading and those items which are usually subsumed in this role. For example, although 26 work supervisors reported that team leading was an accepted function on their units, only 12 expected team leaders to conduct team conferences, 17 expected them to plan the work of others, and eight expected them to evaluate the work of others.

A few head nurses identified functions not included in the check list which stemmed from utilization practices in specialized areas. These included transcribing doctors' orders, admitting and discharging patients and interviewing patients and families on a psychiatric unit, helping in the treatment ward on a psychiatric unit, and scrubbing for deliveries on an obstetrical unit.

These variations supported the responses of one hospital educator who indicated that lack of role clarification was a problem in conducting effective educational programs for practical nurses and another who suggested that expectations for the practical nurses were not clear.

Perceptions of learning needs of licensed practical nurses held by instructional personnel in hospitals. One registered nurse in the educational department of each general hospital completed the questionnaire. Failure to respond to selected items occurred in this group also. As a result, the data on some items reflected the instructional viewpoint of only two hospitals.

All three respondents felt that the newly graduated and employed practical nurses do not meet the demands of the beginning staff nurse role for that level in their institutions. One did not identify the nature of the deficits, but the other two mentioned the ability to perform the duties on a particular shift or nursing unit, knowledge of equipment, ability to chart and administer medications.

Attempts by the education departments to remove these initial deficits included working with the new nurse on a one-to-one basis (2), providing classroom instruction (2), and requesting the head nurse to provide instruction by the experienced nurses on the unit (3). Two felt these efforts were successful, and one felt they were partially successful. The estimates of time required before the practical nurse achieved full job competency were four to six weeks, 3 months, and 6 months.

Only two felt that an outside agency could conduct a program beyond the basic program which would assist this new employee to assume full job responsibilities more readily, but all three agreed that educational programs by an outside agency to promote job readiness of licensed practical nurses would facilitate the work of their education departments. The priority programs suggested to facilitate job readiness were: pharmacology (2) with emphasis on procedural aspects of group administration of medications, charting (1), and quality care (1).

The advantages these two respondents felt there could be in having these outside programs were that they would decrease the length of the orientation period and cause less stress on the units (1), and they would "create a better understanding of expectations by the nursing units" (1).

This latter remark is unclear, but it can be inferred that there is some lack of understanding or agreement about the level of competency of the new graduate somewhere.

The possible disadvantages they envisioned consisted of problems arising from the fact that teaching by an outside agency would not be specifically directed toward their institution (1), and because procedures vary in all institutions (1).

Separate educational programs for their licensed practical nurses generally were offered by only one of the education departments represented, but all three respondents indicated they planned to offer programs to meet requirements if a continuing education clause were enacted for relicensure by the Indiana State Board. One of the respondents felt that licensed practical nurses do not need learning opportunities other than those presently available to them.

All three indicated their programs dealt with the specific knowledge, skills and functions of the practical nurse, and two reported programs that met educational needs extending beyond the immediate employment setting.

Two identified difficulties in conducting effective educational programs for their licensed practical nurses; these were lack of clarification of the roles of the licensed practical nurse and the registered nurse (1) and the varying abilities of the large numbers attending programs (1).

The two respondents who favored participation of an outside agency in continuing education suggested the following programs for which licensed practical nurses in general have immediate learning needs:

Administration of medications	1
Infection control	1
Nursing audit	1
Charting	1
Dealing with patients' anxieties	1
Observation skills	1
Renal dialysis	1
Death and dying	1
Team conferences	1

Perceptions of learning needs of practical nurses held by supervisory personnel in hospitals. The knowledge and skills of the newly graduated and employed practical nurse were deemed inadequate to meet the demands of the beginning staff nurse role for that level by 21 of the 43 respondents (49%). The deficits identified and their frequencies were as follows:

Lack of technical skills:	
Experience in procedures	6
Too slow and lacking in organizing ability	2
Special skills for special areas	2
Intramuscular and intravenous medications	1
Assisting the doctor	1
Lack of knowledge and/or its applications:	
Pharmacology	8
Dealing with the emotionally ill	3
Ability to assess and react to patients	2
Care of the critically ill	1
Care of orthopedic patients	1
Team leading	1
Teaching patients and families	1
General ability to apply knowledge	1
Lack of self confidence to do the job	1

The lack of technical skills and lack of self confidence reported probably could be expected from the products of nursing programs at any level, and these deficits could presumably be removed through effective supervision. The deficits in knowledge would be amenable to improvement through an organized instructional program with follow-up supervision

on the job.

Most educators in basic training programs in nursing recognize that they cannot prepare their educational products for immediate assumption of full job responsibilities. In that sense the educator expects the new graduate to be a learner, but the work supervisor expects her to be an accomplished practitioner. When these differences in expectations in technical competency are added to assignments to job roles, such as team leading, for which the new worker has not been prepared, a heavy teaching burden must fall on the employing agencies. The head nurses apparently recognized this since 22 reported one-to-one instruction by nursing personnel and 10 reported instruction by educational personnel to make up these deficits. All but six felt the efforts to meet the learning needs of the new graduate were effective. Nine of the respondents felt that an outside agency could conduct programs which would develop a greater degree of readiness for full job responsibilities in the new practical nurse. The programs suggested for this purpose were as follows:

Special programs for specialized areas in nursing	4
Pharmacology	2
Management skills	1
Spelling	1
Emotional and psychological aspects of patients' behavior	1

Team leading was not identified as a primary deficit, and it was not suggested overwhelmingly as an educational need. It must be assumed from this that the head nurses are satisfied with the institutional methods to prepare practical nurses for this function.

In responding to questions about the learning needs of licensed practical nurses in general, 31 indicated that a learning program for practical nurses was conducted by their institutions, but generally they

were described as programs with mixed levels of personnel. Approximately half of those reporting programs felt the offerings were oriented to the specific job demands of practical nurses and also included opportunities for learning beyond the demands of the immediate job setting.

Of those who reported having a learning program for this occupational group, 14 (33%) felt the programs were not effective in meeting their learning needs. The difficulties in conducting effective programs were attributed to the following factors:

Attendance problems: 6
- Shift rotation and conflict of hours
- Press of work load
- Lack of interest

Quality of instruction: 4
- Lack of basic knowledge to build on
- Inadequate initial orientation
- Ineffective programs
- Lack of definitive job description

Attitudes of personnel: 2
- Lack of independence
- Personal feelings of registered nurses and nurse aides which limit the functioning of practical nurses

Self-perceived learning needs of licensed practical nurses employed in hospitals. A segment of the questionnaire administered to practical nurses was concerned with the reactions of the respondents to past educational experiences. This was included in the study because it was felt that valuable information could be obtained which would help in establishing guidelines for the model of the learning center.

Although 30 of the 88 respondents (34%) felt that inservice programs had not met their learning needs, one of the primary reasons for this seemed to be the fact that they did not have opportunities to attend. However, more expressed concern about the quality and level of programs.

A summary of the responses to the questions about how inservice programs failed to meet their needs with some descriptive comments is as follows:

Attendance difficulties: 13
- RN's get to go; LPN's do not
- Not enough help to get to go
- Not offered in the evening when I work
- Offered at a time when I cannot go

Quality of instruction inadequate: 11
- Often rushed and incomplete
- Not enough time on topic
- Inadequate instruction and instructors
- Time limits not set
- Not relevant:
  - Need programs about current problems
  - Not geared to keeping up with new procedures
  - Mostly textbook answers, not applicable answers

Level of offering inappropriate: 5
- Too technical
- Too general

Mechanical problems: 2
- Programs not announced
- Programs not given often enough

Although 56 practical nurses had reported that they had attended continuing education programs offered by outside agencies, only 48 responded to the item asking whether these programs had met their learning needs. The assessment by 20 of them was negative. The reasons given for this with some descriptive comments were as follows:

Level of offering inappropriate: 11
- Too technical
- Too complex
- Too general
- Already know about the topic

Attendance problems: 10
- Work schedule prevents going
- Distance prevents going

Quality of instruction inadequate: 10
  Not well prepared
  Not relevant

Mechanical problems: 2
  Not enough programs available
  Not publicized enough

Apparently those who were dissatisfied with the programs assessed them in very much the same manner as they had the inservice programs, and again attendance problems played a large part in their difficulties.

In describing their future learning needs, only 24 indicated that their employers expected them to know or do things they were not prepared to do. Nevertheless, this represents 27% of the respondents, and consequently it is a cause for concern even though 23% of the sample had been employed for one year or less.

The interest in having more learning opportunities than were presently available to them was very high as attested to by the affirmative responses of 80 respondents (91%). The distribution of responses to items concerned with attendance at programs and career plans are shown in Table 6.

TABLE 6. REACTIONS OF PRACTICAL NURSES* EMPLOYED IN HOSPITALS TO ISSUES IN CONTINUING EDUCATION

Issues	Yes	No	No Resp.
1. REASONS FOR TAKING COURSES IN AREA OF INTEREST:			
Personal satisfaction	86	2	
To qualify for a raise in pay	40	47	1
To qualify for a promotion	29	57	2
To improve performance on present job	82	6	
To accumulate credits for re-licensure	47	41	
To prepare for a job in another institution	16	70	2
2. REASONS WHICH HAVE, OR MIGHT, PREVENT ENROLLMENT IN CONTINUING EDUCATION CLASSES:			
Lack of money	50	37	1
Lack of time	53	32	3
Programs not available	40	47	1
Programs available not relevant to me and my job	24	63	1
Programs available too far from home	14	71	3
Programs offered do not fit my time schedule	55	31	2
Lack of interest	11	75	2
3. PREFERRED SCHEDULING OF CONTINUING EDUCATION OFFERINGS:			
Morning classes	41	47	
Early afternoon classes (1:00 to 3:30 PM)	14	74	
Late afternoon classes (3:30 to 5:00 PM)	30	57	1
Evening classes (6:00 to 9:00 PM)	39	48	1
Day long workshops	24	64	
Several hours once a week	61	27	
Several hours, several times a week	20	67	
Joint programs with registered nurses	51	37	
4. FINANCIAL ASPECTS OF CONTINUING EDUCATION CLASSES:			
Would you be willing to attend at your own expense?	64	22	2
Would you be willing to attend on your own time?	81	7	
Would you be more willing to attend if you had financial help?	71	17	
5. CAREER PLANS:			
Are you thinking of changing to another type of work in the health field?	15	73	
Are you considering entering a registered nurse program?	33	54	1

*Total sample 88.

The responses showed some interest in career mobility. Since 15 were thinking about changing to another type of work in the health field and 33 were considering entering a program to become registered nurses, both upward and horizontal mobility were of concern to a substantial number.

The predominent reasons for taking courses were personal satisfaction and improvement of present job performance. However, all the factors listed were motivators for some. The high incidence (41) of those who indicated they would not take courses to accumulate credits for re-licensure cannot be explained on the basis of the data. This may merely reflect the fact that this is not presently required. It cannot be explained on the basis of impending retirement because only eight fell in this category. If the respondents were not aware of pending efforts to make continuing education a mandatory requirement for re-licensure, the negative responses could be understood. However, the reaction does tend to add some further information to the evidence that the nature and purpose of continuing education are not understood by some.

The primary reasons for not attending continuing education classes were lack of time, lack of money and schedule conflicts, although lack of availability of programs was cited by 40 respondents. Lack of interest was cited least often and then by only 11. Due to the structure of the item it could not be determined whether this was general lack of interest or only in the programs which had been available. Responses to related items would suggest that the latter is the case.

Preferred scheduling of courses revealed wide diversity. The highest frequencies were for morning and evening classes offered several hours once a week. However, multiple offerings of programs would

apparently be necessary to meet the needs of this sample.

A majority indicated they would prefer joint programs with registered nurses. This was unexpected in view of the assessments the respondents had made of past experiences regarding the appropriateness of the level of instruction and the degree of complexity. The experience of most practical nurses in continuing education has been in joint programs. Conceivably, there could be some feelings about status in favoring joint programs, or even concern about the quality of the learning if programs were for practical nurses alone.

In spite of the fact that time and money factors were predominant in the reasons for not attending continuing education classes, 64 members of the sample (73%) would be willing to attend at their own expense, and 81 (92%) would attend on their own time. However, 71 would be more willing to attend if they had financial help.

To determine specific areas of interest a check list of possible programs was provided. The responses suggested that there would be enough practical nurses interested in participating to offer a program in most any of the areas, assuming that other factors influencing attendance were favorable. Table 7 shows the frequencies of responses to each interest area with the items arranged from the areas of greatest interest to that of least interest.

TABLE 7. AREAS OF INTEREST TO LICENSED PRACTICAL NURSES* EMPLOYED IN HOSPITALS AND INSTRUCTIONAL RESOURCES NEEDED FOR PROGRAMS

Areas of interest	Interest			Instructional resources			
	Yes	No	No resp.	Class room	Hosp. class	Sup. pract.	Job sup.
Acute illnesses	75	11	2	x			x
Legal aspects of nursing	74	14		x			
Chronic illnesses	73	14	1	x			x
Mental illness	70	18		x			x
Why procedures are done	69	19		x			x
Understanding co-workers	68	20		x			x
Knowledge about job functions	64	23	1	x		x	x
Observing patients and recording	64	24		x		x	x
Planning nursing care	64	24		x		x	x
Team leading	62	26		x		x	x
Development of procedural skills	60	28			x	x	x
The patient as a person	60	26	2	x			x
Death and dying	60	28		x			x
Rehabilitation	56	32		x			x
Growth and development	53	35		x			
Geriatrics	47	41		x			x
Social welfare agencies	46	41	1	x			
Conducting team conferences	42	44		x		x	x
The child as a patient	40	48		x			x
Infant, mother and family	39	49		x		x	x
Institutional departmental relations	39	48	1		x		x
Charge nurse role	28	59	1	x		x	x
Administrative responsibilities	15	72	1	x		x	x

*Total sample 88.

The areas of greatest interest were legal aspects of nursing and disease entities. The areas of least interest were charge nurse and administrative responsibilities, which is compatible with the extent of involvement of practical nurses in these areas in hospitals. There was high interest in acquiring a better understanding of why procedures are done and developing technical skills. The concern with technical competence cannot be ascribed entirely to "newness" on the job since only 20 of the respondents had held their jobs for one year or less. Team leading was also high on the list, but, again, not as high as might be expected. Other interest areas identified were anatomy and physiology (1) and clarification of the duties of the licensed practical nurse (1). There are, of course, appropriate courses offered in the local universities to meet the first need, and proper job descriptions and orientation would meet the second need.

Whether an outside agency could conduct programs effectively in these interest areas would be dependent upon the specific program objectives. Similarly, the learning resources needed, whether classroom instruction, supervised clinical practice or follow-up on the job, would be determined by program objectives. There are some types of objectives which could be achieved solely in the classroom setting of an outside agency; some which could be met only through the resources of the employing agency; and some which could be met through the combined efforts of an outside educational agency in providing classroom instruction and the employing agency in providing supervised clinical practice and/or follow-up on the job.

As a general rule, the work supervisor should know what is being

taught in any program and what assistance her workers need to apply the new knowledge or skill in the job situation. However, it seems unlikely that head nurses could carry more responsibilities than they already do. Therefore, if this weak link in the chain of continuing education of failure to apply new learning is to be corrected, registered nurses on the staff will have to be prepared to assume more responsibility in this area.

Since definitive program planning was not being done at this time, a superficial assessment of the nature of the interests was made in terms of the probable learning resources needed, and it appeared that only two would be restricted to teaching solely in the hospital setting. The development of procedural skills was placed in this category because of the likelihood that the equipment needed would be beyond the capacity of the School to provide. Institutional departmental relations was also excluded from the possible programs an educational agency could provide because of the unique relationships encountered in every institution.

Further clarification of the resources needed to assist respondents in developing procedural skills and understanding of procedures was obtained from items requesting that they list procedures they needed to "learn to do" or to "learn more about." It was apparently difficult for them to differentiate procedures in which they assisted physicians as opposed to performing themselves, at least in responding to these items. However, there is skill required in preparing for and assisting with any medical procedure. Conversely, there is knowledge and understanding required whether the nurse performs or assists.

The responses to these items were analyzed in terms of the role the practical nurse would play, with no attempt to differentiate skill from knowledge required. In a primary role the practical nurse must

assume responsibility for actually doing the procedure; in the assisting role she would be responsible for preparing the patient and the equipment, assisting the physician and providing appropriate after-care for the patient. However, 66% indicated they would like instruction in doing procedures. Following are the procedures identified by the sample group as areas of learning needs:

Respiratory and cardiac systems:

Primary role: 19	Assisting role: 20
Chest tubes (3)	Code blue situations (12)
Care of tracheostomy (4)	Central venous pressure (3)
Respiratory equipment (2)	Blood gasses (1)
Suctioning (1)	Thoracentesis (1)
Reading cardiac monitors (5)	Emergency tracheotomy (1)
Cardiac equipment (3)	Endotracheal tubes (1)
Care of open heart surgery patient (1)	Intensive care procedures (1)

Intravenous infusions:

Primary role: 13	Assisting role: 3
Starting IV's (4)	Blood transfusions (3)
IV "push" medications (7)	
Monitoring IV's (2)	

General procedures:

Primary role: 13	Assisting role: 2
Passing medications (2)	Cortisone injections (2)
Pharmacology (3)	
Giving Heparin (1)	
Care of prosthesis (Glass eye) (1)	
Isolation technique (1)	
Dressings (1)	
Taking doctor's orders (1)	
Transcribing medical orders (1)	
Scheduling diagnostic tests (1)	
Laboratory tests (1)	

Gastrointestinal system:

Primary role: 10	Assisting role: 3
Inserting levine tubes (7)	Paracentesis (1)
Care of colostomy (3)	Gastroscopy (1)
	Liver biopsy (1)

Skeletal system:
  Primary role: 7
    Care of Crutchfield tongs (1)
    Care of total hip replacements (2)
    General orthopedic procedures (3)

Non-specific learning needs:
  Review most procedures (2)
  Advanced first aid (2)

The need for assistance in developing complex procedural skills was so varied that an outside agency would have difficulty offering learning situations which would be of help. On-the-job instruction would probably be the only solution, although the understanding of the purpose and methods of procedures could be developed in a classroom setting.

In order to determine priority learning needs, respondents were asked to identify the "very first program" they would like the School of Health Occupations to offer. It was possible to arrange some of the responses into clusters, but isolated learning needs were many and emphasized the heterogeneity of the sample. The classification and breakdown of programs requested as the first offering were as follows:

Team leading and management: 25
    Implementing doctor's orders (1)
    Charge nurse role (2)
    Management (2)
    Team conferences (2)
    Job description, duties and responsibilities (1)
    Increasing responsibilities and demands (1)
    Planning nursing care (1)
    Legal aspects of nursing (5)
    Team leading (9)
    Charting (1)

Care of the critically ill: 10
    Code Blue (1)
    Cardiology (4)
    Intensive care nursing (1)
    Care of patient with complex equipment (3)
    Death and dying (1)

Psychiatric nursing: 8
- Care of the alcoholic (1)
- Mental health (2)
- Psychology (2)
- Care of the psychology (2)
- Care of the psychiatric patient (3)

Pharmacology course 8; two requested an evening course.

Classes to facilitate career mobility: 7
- "Up the Ladder" Program (2)
- Classes to prepare to test out on registered nurse courses (2)
- Classes offering credit toward becoming a registered nurse (1)
- Registered nurse program (1)
- Classes to train to work in doctor's office (1)

Fluid therapy: 5
- Hyperalimentation (1)
- Intravenous medications (1)
- Intravenous infusions (3)

Review classes: 4
- Common diseases and treatment (2)
- General review (2)

Procedures: 2; New procedures and specific nursing skills.

Anatomy and physiology: 2

Training to work in special units: 1

Nursing care of the neurology patient: 1

Nursing care of the cancer patient: 1

Immediate post operative care of the surgical patient: 1

Social work: 1

Classes to discuss problems: 1

The final items of the questionnaire provided an opportunity for respondents to make comments or suggestions about the role of the School of Health Occupations in continuing education. Many did not respond to this item, but those who did tended to write at length. Some used the opportunity to make suggestions about the basic program for practical

nurses. These suggestions were tabulated and submitted to the School for consideration by the faculty since these responses were not pertinent to the study itself. However, the comments did reflect the same learning needs identified in other items.

There were three negative comments about a continuing education role for the School. One suggested that courses should not be offered unless the hospitals increased rank and salary upon successful completion. The second indicated that the hospital educational programs were adequate for their needs. The third stated that there could not be continuing education for practical nurses because if they were taught more they "would be registered nurses". This latter view suggested that the objectives of continuing education are not understood by everyone, a thread of response which was found in several items on the questionnaire.

Significant comments made by five respondents discussed confusion about the role of the practical nurses and the problems in interpersonal relationships between practical nurses and registered nurses.

Those who endorsed a role in continuing education for the School either directly or indirectly (13) repeated many program suggestions identified in other items. Additional specific suggestions were that program offerings should be in the morning and evening so that all would have an opportunity to attend and that programs should be taught by nurses, not doctors, so that programs would be on an appropriate level.

Learning Needs of the Licensed Practical Nurses Employed in Nursing Homes

Information about the state of practice of practical nurses employed in nursing homes was obtained through the check list of job functions

completed by the work supervisors, who were the directors of nursing and the registered nurses functioning in charge nurse roles. The tabulation of the frequencies indicating the acceptance of functions for the practical nurse is shown on Table 8.

TABLE 8. FUNCTIONAL AREAS OF PRACTICAL NURSES EMPLOYED IN NURSING HOMES AS REPORTED BY WORK SUPERVISORS*

Functions	Yes	No	No resp.
Administering medications	35	1	
Supervising the work of others	35	1	
Reporting to and taking orders from physicians	34	2	
Administering treatments	34	2	
Reporting to the on-coming shift	33	3	
Charting	33	3	
Direct nursing care of patients	32	4	
Planning nursing care	31	5	
Functioning as charge nurse of a unit or floor	30	6	
Planning the work of others	29	7	
Team leading	28	8	
Evaluating nursing care	28	8	
Teaching patients and families	28	8	
Teaching personnel	22	14	
Conducting nursing team conferences	18	18	
Evaluating personnel	16	20	
Functioning as charge nurse of two or more units	13	23	

*Total of 36 work supervisors in the sample.

The responses confirmed the range in the scope of functions, as reported by the practical nurses themselves, from bedside care to charge nurse roles on two or more units. Although the complexity of nursing care administered in many nursing homes may be considerably less than that administered in many situations in hospitals, the degree of responsibility that practical nurses carry for the leadership role is probably greater in nursing homes since larger proportions of work supervisors accepted as functional areas all the items in the check list. Smallest frequencies, but nevertheless proportionately greater than in hospitals, were obtained in the functions of evaluating personnel and functioning as charge nurse on two or more units. One-half the sample indicated that practical nurses conducted team conferences although in hospitals only 28% reported this function.

Since the sample of work supervisors in nursing homes was comprised of directors of nursing and those registered nurses who acted in charge nurse capacities, it was possible to determine whether there were differences of opinion between the director and the charge nurses in individual nursing homes. Four institutions were excluded from this exploration of data because the director was the only respondent. Analysis of the data revealed that the job role of licensed practical nurses in eight of the nine nursing homes was perceived somewhat differently by the director and her charge nurses.

Since all registered nurses in charge nurse roles from the participating institutions did not complete questionnaires, allowances must be made for differences in functions on nursing units due to staffing. For example, on skilled care units there probably would be more registered nurses assigned with a result that practical nurses would assume less

responsibility for the leadership role. For this reason, greater importance was ascribed to those situations in which the director indicated that practical nurses did not function in an area but her charge nurses said they did.

Those functions which directors apparently did not accept as part of the job description of practical nurses in their institutions but in which charge nurses reported utilization with the frequencies of these discrepancies by institutions were as follows:

	Institutions with discrepancies
Conducting team conferences	3
Evaluating nursing care	3
Acting as charge nurse of two or more units	3
Teaching patients and families	3
Planning the work of others	2
Evaluating personnel	2
Bedside nursing care	1
Planning nursing care	1
Administering medications	1
Administering treatments	1
Team leading	1
Reporting to and taking orders from physicians	1
Reporting to the on-coming shift	1

It can be seen from this analysis that if a course in team leading for practical nurses in nursing homes were offered by an outside agency and planned on the basis of the data supplied by the directors, those completing the course would be inadequately prepared in the opinions of some charge nurses. It can also be assumed that there is need for job clarification for practical nurses in nursing homes as well as in hospitals.

Perceptions of learning needs of practical nurses employed in nursing homes held by supervisory personnel. Of the 36 work supervisors in the sample, 14 felt that the newly graduated and employed practical nurse did not have the necessary knowledge and skill to function adequately in the beginning staff nurse role for this level in their institutions. This represented 39% of the sample, as contrasted with the 49% of the sample of work supervisors in hospitals who felt they were inadequate.

More respondents reported attempts to make up deficits than had identified the presence of deficits. For this reason, the remedial measures described probably included the kinds of orientation activities which any new nurse in a new employment setting would need. The attempts to develop job competency included one-to-one instruction in 17 cases and organized class instruction in seven cases. Although 10 respondents felt these remedial measures were effective, 14 indicated that an outside agency could offer a program beyond the basic training program which would develop a greater degree of job readiness.

The types of deficits identified by the directors of nursing were primarily of the team leading nature; whereas the charge nurses predominantly described technical deficits. The complete list of deficits identified by both directors and other charge nurses were as follows:

Lack of technical skills:
- Lack of experience 6
- Advanced treatments 3 (have knowledge but no skill)
- Direct bedside care 2

Lack of knowledge and/or its application:
- Team leading and charge nurse roles 6
  (Including supervision, planning nursing care, teaching and evaluating personnel)

Pharmacology 5
Ability to identify problems and make decisions 3
Ability to detect change in the condition of patients 1
Lack of knowledge and ability to function on the unit 1
Writing 1

Suggested programs which an outside agency could conduct beyond the basic training program to develop a greater degree of job readiness were as follows:

Team leading and management 5
Pharmacology 2
Identifying problems and meeting needs of the aged 2
Everything 1
How to perform without constant supervision 1
Series of courses in various nursing fields 1

One suggested that all new graduates should be required to work in a hospital on initial employment to develop competency.

Again, the question arises about realistic expectations. Those deficits in technical skills which the nurse educator would describe as "normal" or expected are seen as serious deficits by work supervisors. The amount of supervision and instruction available in nursing homes to help the new graduate develop competence is probably variable even though 71% of the sample of practical nurses reported that they were supervised by a registered nurse. If the work supervisor is available on an on-call basis, the inexperienced nurse would probably be reluctant to call for supervision in first time procedures with the result that the development of competence is delayed and mis-learning may occur. As a concommitant effect the quality of care can be reduced.

According to the questionnaires received from the directors of nursing, four institutions conducted learning programs for their practical nurses in general, and these programs were planned to encompass the learning needs of several levels of personnel. Two of the four felt their

programs were concerned with the specific job-related functions of practical nurses; only one felt that her program was oriented to the needs of practical nurses beyond the parameters of the job. The effectiveness of the educational efforts were deemed to be inadequate (1), too few (1), fair (1) and variable (1).

A few of the responses of the charge nurses to the item asking whether their institutions conducted a learning program for practical nurses in general did not agree with the responses of the directors of nursing. In one institution for which the director had indicated there was no program conducted, three of the charge nurses said there was. In another institution for which the director had reported there was a program, one charge nurse said there was not. In the first situation, it is possible that the charge nurses could have been referring to short educational programs conducted on the nursing units rather than an institution wide program. In the latter situation, the charge nurse is probably not aware of the educational efforts being expended by the institution. The end result in either case could be educational efforts which are dissipated because of lack of coordination and lack of awareness of all those at the supervisory level who should be providing support and ensuring the application of knowledge to practice. Nevertheless, 39% of the charge nurses deemed their educational programs ineffective.

The difficulties encountered in conducting effective learning programs for practical nurses were similar to some of those identified by work supervisors in hospitals although the quality of instruction did not appear as a factor. The analysis of the problems described with frequencies and some descriptive comments was as follows:

Attendance problems: 5
- Part time personnel
- Time factors
- Attendance (?)

Mechanical problems: 3
They need more programs than we can give
Lack of money
We have so few practical nurses it would be too costly

Attitudes of personnel: 2
They know it all

Suggested programs which an outside educational agency could offer to meet the immediate learning needs of practical nurses in general with some descriptive comments were as follows:

Team leading and supervision: 7

Geriatric nursing: 6
Reality orientation and remotivation techniques
Accepting the patient as an individual
Care of the critically ill

Skill Development: 6
Administration of oxygen and others
Sterile procedures
Lifting and transporting
Most any skills
Life saving emergencies
Starting IV's

Legal aspects of nursing: 2

Pharmacology: 1

Since some of these programs are so similar to performance deficits identified in the new graduate, experience alone does not result in the kind of learning and improved job performance the work supervisors feel is needed.

Self-perceived learning needs of licensed practical nurses employed in nursing homes. All of the 34 respondents had attended inservice education programs offered at their places of employment; all but nine had attended programs conducted by outside agencies, with three not responding. Generally, the majority seemed satisfied with these educational experiences

since only 11 expressed dissatisfaction with inservice programs and five with outside programs. However, the number who were dissatisfied with inservice programs constituted 32% of the sample. In the hospital sample 34% had indicated dissatisfaction.

The failure of inservice programs to meet the needs of some was primarily ascribed to the level of the offerings; whereas in hospitals simply getting to attend was a large problem. The types of problems described, their frequencies and some descriptive comments were as follows:

Level of offering inappropriate: 8
- Mostly for nurse aides, no depth
- Material we already know
- Not enough detail

Quality of instruction inadequate: 1
- Not relevant

Mechanical problems: 1
- Too few programs

Similarly, outside programs were classified by those who felt they did not meet their needs in the same order:

Level of offering inappropriate: 9
- Too technical
- Too complex
- Too general

Quality of instruction inadequate: 2
- Not relevant

Attendance difficulties: 1
- Offered when I must work

Mechanical problems: 1
- Programs not announced

In describing their future learning needs, only five felt that the performance expectations their employers had for them exceeded their knowledge or skill. This represented 15% of the sample in nursing homes as

contrasted with 27% in hospitals who felt this way. More learning opportunities than were available to them were desired by 31 of the sample of 34 (91%). The reactions of the respondents to some of the issues involved in attending educational programs are shown in Table 9.

TABLE 9. REACTIONS OF PRACTICAL NURSES* EMPLOYED IN NURSING HOMES TO ISSUES IN CONTINUING EDUCATION

Issues	Yes	No	No resp.
1. REASONS FOR TAKING COURSES IN AREAS OF INTEREST:			
Personal satisfaction	32		2
To qualify for a raise in pay	16	14	4
To qualify for a promotion	10	20	4
To improve performance on the job	29	2	3
To accumulate credits for re-licensure	15	16	3
To prepare for a job in another institution	8	23	3
2. REASONS WHICH HAVE, OR MIGHT PREVENT ENROLLMENT IN CONTINUING EDUCATION CLASSES:			
Lack of money	22	12	
Lack of time	24	10	
Programs not available	10	23	1
Programs available not relevant to me and my job	6	27	1
Programs available too far from home	7	26	1
Lack of interest	6	28	
Programs offered do not fit my time schedule	18	16	
3. PREFERRED SCHEDULING OF CONTINUING EDUCATION OFFERINGS:			
Morning classes	7	26	1
Early afternoon classes (1:00 to 3:30 PM)	2	31	1
Late afternoon classes (3:30 to 5:00 PM)	12	22	
Evening classes (6:00 to 9:00 PM)	16	16	2
Concentrated day long workshops	11	23	
Several hours once a week	14	20	
Several hours several times a week	8	25	1
Joint programs with registered nurses	17	17	
4. FINANCIAL ASPECTS OF CONTINUING EDUCATION CLASSES:			
Would you be willing to attend classes at your own expense?	23	11	
Would you be willing to attend classes on your own time?	30	4	
Would you be more willing to attend if you had financial help?	24	10	
5. CAREER PLANS:			
Are you thinking of changing to another type of work in the health field?	9	24	1
Are you considering entering a registered nurse program?	13	21	

*Total sample 34.

Career mobility was of interest to at least one-third of the sample; those reporting they were considering entering a program to become registered nurses numbered 13, and nine were thinking about other types of work in the health field.

The reasons offered for taking courses which had the highest frequencies were the same as those given in the hospital sample: namely, personal satisfaction and improvement of job performance. The least compelling reason was to prepare for a job in another institution. Again, there was a high incidence (16) who said they would not take courses to meet licensure requirements. No explanation can be offered for this based on the data, but if a re-licensure clause is enacted requiring continuing ecucation, almost half the sample will probably need detailed explanations of its nature and intent.

Lack of time, lack of money and schedule conflicts were given as the main reasons which have, or might, prevent attendance at continuing education programs. Lack of interest and lack of relevance were cited least often.

There was no clear preference for program scheduling; evening classes scheduled for several hours once a week carried the highest number of choices. However, the distribution of responses support the assumption that multiple scheduling would be required to meet the needs of the total group.

The sample was evenly divided over the issue of preferring joint classes with registered nurses. Since those who felt the outside programs had not met their needs cited the inappropriateness of the level most frequently as the cause, and since most programs which they could attend in the area have been joint programs, this preference is difficult to explain.

However, 15 of the sample had not responded to the item inquiring about the adequacy of outside programs. This reluctance to assess may be related to the fact that the practical nurses do tend to identify with registered nurses, and they probably would hesitate to report they did not like programs developed primarily for registered nurses to which they had been invited. Although joint programs should be encouraged for specific objectives, they should not constitute the totality of programs available for practical nurses. It is doubtful that the kinds of learning needs which the practical nurses identified in this study could be met entirely through joint programs with registered nurses.

The majority (68%) would attend classes at their own expense, and 88% on their own time. However, all but ten would be more willing to attend if they had financial help.

The check list of interests revealed that a program developed in any of the suggested areas except institutional department relations and pediatric and obstetric nursing would probably attract enough participants to offer a class accommodating the minimum number of 20, assuming that other attendance factors were favorable. However, scheduling would be a problem as shown previously. Table 10 shows the areas of interest ordered from the highest to lowest frequencies of positive responses.

TABLE 10. AREAS OF INTEREST TO LICENSED PRACTICAL NURSES* EMPLOYED IN NURSING HOMES AND INSTRUCTIONAL RESOURCES NEEDED FOR PROGRAMS

Areas of interest	Interest			Instructional resources			
	Yes	No	No resp.	Class room	Sit. class	Sup. pract.	Job sup.
Chronic illnesses	28	6		x			x
Rehabilitation	28	6		x			x
Understanding co-workers	28	6		x			x
Legal aspects of nursing	27	7		x			
Geriatrics	27	6	1	x			x
Death and dying	26	8		x			x
Mental illness	25	9		x			x
Knowledge about job functions	25	9		x		x	x
Procedures, skill development	25	8	1	x		x	x
Procedures, understanding	24	5	5	x			x
Charge nurse responsibilities	24	10		x		x	x
Observing patients and recording	24	10		x		x	x
Planning nursing care	24	10		x		x	x
The patient as a person	24	10		x			x
Team leading responsibilities	23	11		x		x	x
Acute illnesses	22	12		x			x
Growth and development of the individual	22	11	1	x			
Social welfare agencies	21	12	1	x			
Conducting team conferences	19	15		x		x	x
Institutional department relations	17	17			x		x
Administrative responsibilities	16	17	1	x		x	x
The child as a patient	15	19		x			x
Infant, mother and family	13	21		x			x

* Total sample 34.

The areas of greatest interest reflected the types of patients cared for in nursing homes. For example, chronic illnesses, rehabilitation, geriatrics and death and dying appeared high in the list; whereas in the hospital group they were relatively low. In both the hospital and nursing home samples learning needs concerned with the direct care of patients, as opposed to team leading and charge nurse role, were of interest to more respondents, but the actual difference in frequencies was small.

Although the same types of instructional resources would be needed for programs designed for practical nurses in hospitals and nursing homes, the content of classroom instruction and the nature of supervised practice would have to be modified to adjust to the differences in the occupational settings. Programs in interest areas which would not require supervised practice could probably be developed to accommodate practical nurses from both types of facilities, but selection of applicants for programs would have to be done with extreme care in teaching situations with objectives related to a specific type of health care facility.

The nursing home group expressed concern about developing technical competence just as the hospital group did, with 74% indicating a need to learn procedures. The kinds of procedures in which the practical nurses in nursing homes indicated learning needs did not reflect the complexity and variations present in the hospital data. Furthermore, all were types in which the nurse would play a primary role, rather than assisting the physician. Following is a list of the procedures identified and the numbers of respondents expressing interest.

Inserting levine tubes and gavage feedings	6
Intravenous infusions	4
Cardiopulmonary resusciatation	2
Drawing blood samples	2
Care of tracheostomy	1
Respiratory equipment (IPPB)	1

Pacemakers and their function	1
Colostomy irrigation	1
Male catheterization	1
Isolation in nursing homes	1
Review all procedures	1
Any new procedures	1

Since some of these procedures do not require complex equipment, an outside educational agency could probably provide the initial instruction to meet these learning needs, which should then be followed up on the job.

The item requesting that the respondent indicate the "very first program" she would like to see offered did not provide much assistance in identifying the priority learning need. The check list of interest areas showed that the majority would be interested in most any type of program, but learning needs of the greatest importance to respondents varied widely. The program categories designated as the first program desired and the numbers who expressed interest are as follows:

Team leading and management 9
- Observing and recording (1)
- Team leading and charge nurse (4)
- Planning nursing care (1)
- Administration (1)
- Organizing work (1)
- Getting nurse aides to complete assignments (1)

Geriatric nursing care 4

Advanced pharmacology 4

Review courses 4
- Procedures (1)
- Medications (3)

Psychology and mental illness 3

Orthopedic nursing care 2
- Care of osteomyelitis (1)
- Complications of fractures, knees and hips (1)

Physical and emotional needs of cancer patients 1

Care of tracheostomy 1

Care of craniotomy 1

Death and dying 1

Rehabilitation 1

Job training for specific jobs: doctor's office, nursing home, etc. 1

Credit classes toward becoming a registered nurse 1

The last item on the questionnaire inviting suggestions or comments about the role the School of Health Occupations could play in meeting the learning needs of licensed practical nurses brought no response from 19. Two comments were made about the basic practical nurse program, and the remaining comments were all favorable to the involvement of the School in continuing education. Excerpts of interest from the comments were as follows:

We need programs to meet our needs 6
- Offer night classes (3)
- Offer programs at a reasonable cost (1)
- Offer programs at the LPN level, not an aide or janitor (1)
- Offer advanced programs for LPN's (1)

We need programs in management 5

We need more programs 2

We need a program to gain respect and improve the profession 1

We need help to learn how to treat families; "they aren't animals" 1

We need registered nurse classes at a reasonable cost 1

Good idea, but I live 30 miles away and have a family 1

Summary of the Learning Needs of Licensed Practical Nurses

Extensive data were obtained from groups employed in both hospitals and nursing homes. Although all data provided insight to learning needs

and how they are perceived, the following findings appeared to have significance for the development of guidelines for the operation of a learning center and the identification of needed programs.

Licensed practical nurses employed in hospitals. 1. The role of 65% of the practical nurses employed in hospitals involved team leading or charge nurse responsibilities, at least on an intermittent basis. Consequently, performance expectations are not consistent with the role for which most practical nurses have been prepared. However, the problem is compounded by the fact that functions within the assigned role differed depending upon the institution and the nursing unit within the institution.

2. All three respondents in the instructional group felt the newly graduated practical nurses do not meet performance expectations on initial employment, but there was no agreement on the nature of the deficits. Team leading was not identified as a deficit.

Only two of the staff development personnel felt that an outside agency could develop a program to promote greater job readiness, and no suggestions for programs included team leading.

3. Two of the instructional personnel also favored the involvement of an outside agency in continuing education for practical nurses, but there was no agreement on urgent learning needs.

4. Among the work supervisors 49% of the sample felt that the newly graduated practical nurses do not meet expectations on initial employment. Again, there was no agreement on the nature of the deficits, but only one mentioned a need for instruction in team leading.

5. Nine of the 43 head nurses felt that greater job readiness could be developed through instruction by an outside agency, with only one suggesting management skills as a needed program.

6. The inservice education programs were deemed ineffective in meeting the needs of practical nurses by 33% of the work supervisors, but the primary difficulty described was that of attendance.

7. Slightly more than one-half of the practical nurses themselves felt their inservice education programs were effective. Those who were dissatisfied (34%) gave the quality and level of instruction as the primary difficulty, but problems in attendance were second.

8. Although few practical nurses attempted to assess the effectiveness of outside programs they had attended, those who gave negative evaluations identified the quality and level of instruction as the main problem.

9. Additional learning opportunities were desired by 91% of the sample of practical nurses. Of these, 92% would attend programs on their own time and 73% at their own expense.

10. The three main areas of interest according to the frequencies on the check list were in acute illnesses, legal aspects of nursing and chronic illnesses, with team leading appearing ninth in the ordering.

Technical competence either in understanding procedures or learning to actually do procedures was of concern to 66% of the sample. Although the procedures ranged from simple skills to the most complex, most of the interest centered in the latter.

Strong interest was shown in most of the areas on the check list of interests. The priority learning need was for team leading although first program preferences were extremely diffuse.

11. Lack of time and lack of money were identified as the primary barriers to attending programs, but there appeared to be sufficient interest in programs for practical nurses in hospitals to warrant offering them in an outside educational setting.

12. Some of the learning needs identified could be met through the independent offerings of an outside agency. However, the development of complex procedural skills could only be accomplished in the occupational setting. Other programs would require cooperative planning, implementation and evaluation involving both the educational and the employing agencies in varying degrees. Role clarification would have to preceed instruction in some areas.

Licensed practical nurses employed in nursing homes. 1. The role of practical nurses employed in nursing homes has also shifted upwards, and the move has been toward greater involvement at the charge nurse level, with 82% of the practical nurses participating in the study reporting this type of activity, at least on an intermittent basis.

2. Generally, there was more consistent acceptance of specific functions for the role of the practical nurses by work supervisors in nursing homes than had been shown in the hospital sample. Nevertheless, some differences of opinions appeared. Some situations were noted in which directors indicated that practical nurses were not expected to perform certain functions, but charge nurses reported utilization in those areas.

3. Among the sample of work supervisors 39% felt the newly graduated practical nurse failed to meet performance expectations on initial employment.

Although there was no agreement on the specific nature of the deficits, directors of nursing tended to identify team leading and charge nurse inadequacies, and charge nurses tended to identify technical deficits. Only five of the 36 in the supervisory sample suggested a program in team leading and management to promote job readiness.

4. There was no agreement concerning whether an outside educational program could facilitate the development of job readiness, but 14 of the 36 work supervisors endorsed the idea.

5. Only four nursing homes in the sample reported learning programs for their practical nurses in general. The directors of nursing in these institutions apparently did not consider them to be very effective. Attendance problems was the difficulty reported most frequently.

6. Programs suggested by work supervisors to meet the learning needs of practical nurses generally, in the order of frequencies reported, were team leading and supervision, skill development, legal aspects of nursing and pharmacology.

7. Their inservice education programs were deemed inadequate to meet their learning needs by 32% of the sample of practical nurses themselves. The inappropriateness of the level of offering was the primary reason given for the negative assessment.

8. Those practical nurses who also assessed outside programs they had attended as inadequate gave the same primary reason.

9. Additional learning experiences were desired by 91% of the sample of practical nurses. Of these, 88% would attend programs on their own time and 68% at their own expense.

10. The three main areas of interest to practical nurses employed in nursing homes, according to the check list of interests, were chronic illnesses, rehabilitation and understanding co-workers. The charge nurse role and team leading appeared at approximately the mid-point of the ordering. However, interest was high in most all of the areas.

A need to learn to do procedures was reported by 74% of the sample. These procedures ranged from a review of all procedures to the complex

procedures typically encountered in the care of patients in the nursing home.

A priority learning need could not be clearly established because of the great variety of responses, but team leading and management was cited most often by those who expressed a preference for the first program to be offered by an outside agency.

11. Lack of time and lack of money were the primary barriers to attendance at programs reported by the practical nurses, but there appeared to be sufficient interest in programs to warrant offerings by an outside agency.

12. The extreme range of learning needs identified by both the practical nurses and their supervisors revealed that some could be met best in the occupational setting. However, many others could be met through an outside educational agency, some independently and others with varying degrees of cooperation with employing agencies. A need for role clarification for practical nurses employed in nursing homes was found.

Learning Needs of Nurse Aides Employed in Hospitals

Background information about the role the nurse aide assumes in giving care to patients was obtained from the check list of functions completed by the work supervisors.

It had been expected that there would be an upward shift reported in the job role of nurse aides, and this was confirmed by the functions reported by the work supervisors. The total distribution of responses is shown in Table 11.

TABLE 11. FUNCTIONAL AREAS OF NURSE AIDES EMPLOYED IN HOSPITALS AS REPORTED BY WORK SUPERVISORS*

Functions	Yes	No	No resp.
Direct nursing care of patients	41	2	
Administering simple treatments	36	7	
Planning nursing care	17	26	
Teaching patients and/or families	16	26	1
Evaluating nursing care	14	28	1
Observing patients and recording on charts	12	28	3
Reporting to on-coming shift	9	33	
Teaching personnel	9	34	
Administering medications	8	35	
Administering or monitoring complex treatments	8	35	
Supervising and/or modifying menus	6	37	
Reporting to, and taking orders from, physicians	3	40	
Evaluating personnel	3	40	
Supervising the work of others	3	40	
Planning the work of others	2	41	
Functioning in a charge role on a unit	2	41	
Functioning in a charge role on two or more units	0	43	

*Total of 43 work supervisors in the sample.

The direct nursing care of patients and the administration of simple treatments were clearly the predominant functions, and charge nurse roles were least often reported. However, the designated incidence of planning, teaching and evaluating functions raised questions about the prevalence

of these reponsibilities in the different institutions.

Variations in the nurse aide role could be expected between the general hospitals and the psychiatric hospital. For example, on some nursing units in a psychiatric care facility where the needs of patients are primarily for observation, protection, simple medications and assistance in meeting personal needs the nurse aides would normally be the primary source of care, and role changes involving more responsibility for leadership functions would follow.

However, since the incidence of reported functions involving more advanced levels of performance exceeded the sample of head nurses in the psychiatric hospital, it was obvious that teaching, planning and evaluating functions were assumed by nurse aides in some situations in general hospitals. For this reason, the data were further analyzed by institutions to clarify this trend. Table 12 shows this analysis.

All work supervisors in Hospital D., the psychiatric hospital, accepted direct nursing care, administration of medications and simple treatments and observing patients and recording on charts as common assigned functions on their units. There was no unanimity in the general hospitals. The most obvious differences between the two types of institutions were that nurse aides in general hospitals did not administer medications or assume charge nurse functions.

In all the other functions wide variations occurred in both the general hospitals and the psychiatric institution. The range of differences within an institution can be pointed out in the area of administration of treatments. In one general hospital nurse aides on some units did not administer even simple treatments, but on other units they performed simple treatments as well as monitoring complex treatments. In the same hospital

on a specialized nursing unit nurse aides performed catheterizations and functioned generally at a technician level. Generally, explanatory comments revealed that starting oxygen, suctioning patients, attaching patients to monitors and watching oxygen, suctioning and intravenous therapies were typical complex procedures engaged in by nurse aides.

TABLE 12. FUNCTIONAL AREAS OF NURSE AIDES REPORTED BY HEAD NURSES* IN INDIVIDUAL HOSPITALS

Functional areas	Hospitals			
	A	B	C	D
Direct nursing care of patients	10	12	11	8
Administering medications	0	0	0	8
Administering simple treatments	10	8	10	8
Administering or monitoring complex treatments	4	2	3	5
Observing patients and recording on charts	0	0	4	8
Planning nursing care	7	6	2	2
Evaluating nursing care	3	5	3	3
Teaching patients and/or families	5	3	5	4
Supervising the work of others	1	0	1	1
Planning the work of others	0	0	2	0
Functioning in a charge nurse role on a unit	0	0	0	2
Functioning in a charge nurse role on two or more units	0	0	0	0
Reporting to, and taking orders from, physicians	1	0	0	2
Teaching personnel	1	2	2	4
Evaluating personnel	1	0	1	1
Supervising and/or modifying menus	2	1	1	2
Reporting to on-coming shift	1	0	1	7

*Numbers of head nurses in each hospital: Hospital A-11; Hospital B 13; Hospital C-11; Hospital D-8. Hospital D is the psychiatric institution.

Although it can be assumed that not all nurse aides actually carry responsibility in all the advanced functional areas reported, it is clear that some nurse aides in both types of institutions carry responsibilities for performing procedures and teaching, planning and evaluating activities which extend beyond basic nurse aide preparation.

The exact degree and nature of these responsibilities could only be determined by further investigation. When a head nurse reports that planning and evaluating nursing care or teaching personnel, patients and families are accepted functions for nurse aides on her unit, what does she expect? For example, what constitutes planning nursing care at the nurse aide level? This function may range in complexity from actually developing the plan of care for a patient to making a decision about how to organize work to give the nursing care already prescribed on the patient's nursing care plan. Within this range there are many kinds of participatory planning, either individually or within the nursing team situation.

Similarly, in teaching patients the instructional needs may vary from situational teaching incidental to the administration of nursing care, such as teaching a patient to turn, cough and deep breathe, to a planned program of instruction to prepare a patient to adjust to a chronic health problem.

In spite of the fact that frequencies reported for these advanced functions were low, some nurse aides apparently have been prepared, or need to be prepared, to function in ways not generally assumed to be part of the traditional nurse aide role. In view of the diversity of functions reported the way in which nurse aides are prepared for their jobs becomes vitally important to the quality of care rendered, and learning needs could be expected to reflect this diversity.

Perceptions of the learning needs of nurse aides held by instructional personnel in hospitals. The section of the questionnaire dealing with the learning needs of nurse aides was completed by two of the respondents; the third was not involved with this occupational group. Consequently, only two general hospitals were represented by the data obtained.

Both hospitals conducted their own basic training program for nurse aides. One accepted nurse aides for employment without additional training if they had completed a basic course elsewhere but also required a specialized training program for special areas. This institution did not use apprenticeship-type training. The other institution did not accept nurse aides trained elsewhere for direct employment. Neither did they require additional preparation for specialized areas, but they did utilize apprenticeship-type training. Completion of the Red Cross Course in the Home Care of the Sick was not required by either.

Each institution conducted training programs when they had vacancies on their staffs to be filled, and for one this was quarterly and for the other approximately every nine weeks. Both educational departments used the training manual Being a Nurse Aide published by the Hospital Research and Educational Trust. One respondent felt that difficulties were encountered in conducting their own training program, and the other did not.

Both agreed that an outside agency could effectively teach the basic theory and skills to nurse aides and that, if this were done, the personnel in the hospital education department could supervise the clinical practice portion of the training program. One indicated that the time freed for her educational department in using this approach could be used by the instructor to work in other staff development areas for which they had not previously had the time.

The in-agency education programs for nurse aides in general at both institutions were reported to be concerned with the specific knowledge, skills and functions of the nurse aides as well as learning needs beyond the immediate employment setting. Both reported having separate programs for this occupational group, at least at times.

The difficulties encountered in conducting educational programs for their nurse aides in general were concerned with attendance because nurse aides were too busy to come to programs (1) and problems arose in orienting nurse aides to the general hospital after employment in a nursing home (1).

There were two suggested immediate learning needs of nurse aides generally which the respondents felt could be met in continuing education programs offered by an outside agency and which were not being met by the hospital education department. These were a refresher course and a course in the care of the patient with a terminal illness.

Perceptions of the learning needs of nurse aides held by work supervisors in hospitals. The questionnaires administered to the 43 work supervisors contained the same questions about the basic training of nurse aides as were included in the questionnaires completed by the instructional personnel in hospitals. This was done primarily to determine the agreement among these groups about the nature of the preparation of this level. It was possible to compare the responses of the head nurses and the instructors from two general hospitals.

The comparison of responses indicated that some head nurses were either misinformed or did not know the nature of the basic preparation of nurse aides for their jobs. Some head nurses indicated they didn't know whether nurse aides were employed if trained elsewhere, or whether

specialized training was given for special areas, or whether apprenticeship learning was part of the preparatory program, or whether a Red Cross course was prerequisite for employment. Some failed to respond to these questions suggesting lack of knowledge, and others responded differently from the instructional staff. Similar discrepancies were noted among responses from the head nurses in the other general hospitals and the psychiatric hospital.

Responses to the questions whether the present training for nurse aides consistently prepared them to know or do those things expected of them on job entry brought negative responses from 20 of the head nurses, 47% of the sample. The areas in which further training was provided on the units were reported as follows:

Specific training for specific units	5
Organizing work and carrying a full assignment	4
Preparation of formula and care of children	2
Assisting physicians with examinations, suturing and tests	1
Training on basics missed in initial preparation	1
Emergency situations	1
Suctioning	1
Better patient care	1
Care of the critically ill	1
Special procedures in obstetrics	1
Dealing with psychiatric patients	1
Understanding human behavior	1
Communication skills and listening	1
Responsibility to the nursing unit	1
Reporting to the team leader	1

Nine of the 15 areas in which further training was provided were specific learnings unique to certain specialized areas and which would not normally be covered in a general training program.

However, most basic training manuals for nurse aides do not cover advanced functions in the areas of complex procedures, planning, teaching, evaluating and supervising which the check list of functions revealed were

responsibilities of at least some nurse aides. Neither was additional training reported in these areas. If head nurses do not know the exact nature of the initial instruction, or have unrealistic expectations for their nurse aides, or do not have a carefully developed on-going program for instruction on their units, nurse aides could be providing care for patients beyond their level of competence at the expense of the quality of the care and their own satisfaction in their jobs.

Unless each new employee at any level is viewed as being in a developmental stage, and unless each nurse in a supervisory capacity knows what that stage is and shares in the responsibility to help the employee develop on the job, then any acquired competency is merely fortuitous. A necessary corollary to development on the job would be a definitive job description.

The majority of the respondents reported that an educational program was conducted for nurse aides generally although they apparently attended programs primarily with other levels of personnel. In spite of joint attendance, the majority felt the programs were concerned with specific job-related learning needs of nurse aides, and slightly less than half indicated that programs were also concerned with learning needs beyond the immediate job situation. However, 21% felt the programs were not effective, but the numbers who failed to respond to these items might indicate lack of any previous attempts to seriously assess the quality of the educational offerings.

No difficulties in conducting effective learning programs for nurse aides were reported by 26 of the sample. Those who did perceive difficulties described them as follows:

Attitudes of personnel and heterogeneity of group: 7
- Lack of motivation of aides (3)
- Different levels of intelligence (1)
- Lack of participation (2)
- Aides lack awareness of personal needs of patients (1)

Attendance problems: 6
- Attendance (2)
- Scheduling of time and getting them off the units (4)

Quality of instruction: 3
- Should have better planned programs (1)
- Need specific training for certain areas (2)

Although 20 of the respondents in the supervisory sample made no suggestions for programs to meet urgent learning needs of nurse aides in general which an outside agency could offer, the programs which were suggested ranged from the simple to the complex. The suggestions and their frequencies were as follows:

Advanced nursing care: 14
- Blood pressure, dressings and vaporizers (2)
- Operating equipment and related care of the patient (2)
- Special training for special areas (2)
- Asepsis and isolation technique (2)
- Role of the nurse aide in emergencies (1)
- Care of orthopedic patients (1)
- Diseases and symptoms (1)
- Cardiopulmonary resuscitation (1)
- Terminology (1)
- Charting (1)

Basic skills: 12
- Positioning patients (1)
- Lifting and turning patients (3)
- General care (2)
- Basic procedures (2)
- Mouth care (1)
- Organization of work and work priorities (3)

Team nursing: 8
- Nurse aide responsibilities in comparison to registered nurse (1)
- Team work with all departments (1)
- Professional conduct (ethics, discretion) (3)
- Aide's role in relation to health team (1)
- Types of nursing and what we try to accomplish (1)
- Assessment of patients (1)

The patient as a person: 8
- Meeting emotional and supportive needs (2)
- Dealing with families (1)
- Communication skills (2)
- Understanding behavior of self and others (1)
- Care of the dying (1)
- Human behavior changes (1)

Although comments were invited from the head nurses about the general role of the School of Health Occupations in continuing education, those who did comment confined their remarks to observations about basic training programs for practical nurses and operating room technicians or merely repeated program suggestions.

Self-perceived learning needs of nurse aides employed in hospitals. Among the 195 respondents all but 28 had attended inservice education programs offered by their employers, and 125 had never attended a job-related program offered by an outside agency. Although 49 did not indicate whether in-agency programs had met their learning needs, 23% responded negatively.

Those who responded negatively listed a variety of reasons. Frequencies of reasons and some descriptive comments were as follows:

Quality of instruction inadequate: 22
- Not relevant:
  - Didn't apply to my job (6)
  - Topics for nurses; no benefit to aides (4)
  - No nursing; just fire and safety, etc. (3)
  - Didn't put nurse aides in their proper place (1)
  - No programs for aides (1)
  - Don't deal with real problems (1)
  - Only sometimes pertinent (1)
- Not well prepared:
  - Instructors not qualified (2)
  - Mostly lectures, no real participation (1)
  - Not interesting; just movies (1)
  - Instructor just reads to us from procedures and policies (1)

Level of offering inappropriate: 17
- Too general:
  - Not enough information and detail (8)
  - Things we already know or are doing (2)
  - Too general to be of value to experienced help (2)
  - Same thing over and over (2)
  - Short movies to refresh our minds of very ordinary information (1)

Too complex and technical:
Sometimes over my head and not needed for nurse aides (2)

Mechanical problems: 4
Not enough of them (3)
Time too short to teach anything (1)

Attendance difficulties: 1
No time to attend

In view of the cost to the institutions to conduct educational programs, the fact that 45 indicated the offerings had not met their needs and that 49 failed to respond to the questions causes some real concern about the returns from the educational dollars spent. Why programs meet the needs of some and not those of others has no easy answer. At least a partial explanation probably lies in the heterogeneity which characterized this sample. The ranges of education, preparation, experience and job functions make it extremely unlikely that any single program would have universal appeal to such disparate groups.

The burden of the inservice education departments would seem to preclude offering more programs, but better educational results might be obtained if the level of offerings were more carefully screened and attendance were made selective. In effect, this would categorize nurse aides into several educational levels, and programs could then be developed based on identified learning needs.

This approach might necessitate fewer programs for each group, but they probably would be more effective. It would have the added advantage of not depleting the nursing units of staff for attendance at programs.

It was not possible to obtain any valid evidence about the satisfaction of nurse aides with outside educational programs. Few had attended any, and of these, few attempted to assess their adequacy as learning experiences.

The majority of the sample probably had feelings of adequacy for their jobs because only 22% reported that employers expected them to know or do things for which they were not prepared. However, 86% indicated they would like more learning opportunities than were available to them. In order to determine the nature of the interests of the group a check list of possible program areas was presented. The affirmative responses indicated that all of the suggested areas appealed to large numbers of them. The distribution of responses on the check list is shown in Table 13.

TABLE 13. AREAS OF INTEREST TO NURSE AIDES* EMPLOYED IN HOSPITALS AND INSTRUCTIONAL RESOURCES NEEDED FOR PROGRAMS

Areas	Interest			Instructional resources			
	Yes	No	No resp.	Class room	Hosp. class	Sup. pract.	Job sup.
Why procedures are done	159	33	4	x			x
Helping the dying patients and family	148	46	1	x			x
Acute illnesses	144	50	1	x			x
Chronic illnesses	143	51	1	x			x
Mental illness	140	53	2	x			x
Observing patients and reporting	137	57	1	x		x	x
How to do certain procedures	137	54	4	x	x	x	x
The patient as a person	133	61	1	x			x
Growing old	128	66	1	x			
Growing and developing as human beings	127	67	1	x			
How social welfare agencies help	117	77	1	x			
The child as a patient	115	79	1	x		x	x
Getting along with co-workers	112	82	1	x			
How nursing care is planned	110	81	4	x		x	x
Caring for a group of patients	103	90	2	x			x
Mother, infant and family	102	90	3	x		x	x
Getting sick from being in the hospital	99	95	1	x			
My part on the nursing team	96	96	3	x			x
How to participate in nursing conferences	90	103	2	x			x
Administering medications	78	115	2	x		x	x
How to supervise the work of others	56	137	2	x			x

*Total sample of nurse aides 195.

The primary area of interest was learning why procedures are done. The area of least interest was learning to supervise the work of others. The distribution of responses was consistent with the fact that the majority of nurse aides in the sample were concerned with the direct nursing care of patients. Unfortunately, advanced areas of performance which head nurses indicated on the check list of functions were not included in the list of possible interest areas except for planning nursing care. Consequently, information about numbers who would be interested in learning basic techniques for teaching patients and personnel and evaluating personnel was not obtained. However, major interests centered around understanding patients and their care and technical competence in giving care.

Programs probably could be offered by an outside agency in all the areas except the development of procedural skills of a complex nature. Some programs would require planned supervised clinical practice, and others could be reinforced through appropriate follow-up supervision on the job.

Respondents were asked to designate the procedures they would like to learn how to do and those they would like to learn more about. Whether some of the procedures they wanted to learn to do are consistent with what the employing agency allowed them to do is doubtful. For example, a few wanted to learn to start intravenous infusions or insert levine tubes. A large group (78) wanted to learn how to administer medications. Since only 30 of the sample were employed in an institution where this is an accepted function for nurse aides, this could not be considered a job-related learning need for all those interested in it. It is possible that nurse aides have assisting roles in complex procedures actually being done by registered nurses, and they could be referring to this assisting role. However, free comments elicited elsewhere in the questionnaire

suggested that some nurse aides feel they should be trained to "do more." As job roles shift upward the reasons for limitations imposed on practice often become blurred. However, 70% of the sample was interested in receiving instruction in procedures.

The procedures the nurse aides in hospitals were interested in learning to do and the frequencies, regardless of whether appropriate for their roles, were as follows:

General procedures: 51
- Catheterization including anchoring and irrigating (16)
- Intravenous infusions (12)
  - Starting IV's
  - Monitoring and discontinuing IV's
- Dressings (8)
  - Sterile
  - Compresses
  - Elastic bandages
  - Decubitus care
- Passing medications (4)
- Procedures to give better care (3)
- New procedures (3)
- Treatments (1)
- Blood pressure (1)
- Positioning patients (1)
- Heat lamps (1)
- Preoperative and postoperative care (1)

Non-specified procedures related to special areas: 19
- Neurological procedures (1)
- Emergency room procedures (3)
- Obstetric procedures (2)
- Care of newborn procedures (2)
- Orthopedic procedures (6)
- Pediatric procedures (1)
- Psychiatric procedures (1)
- Sterilization techniques (1)
- Operation of computer processing medical information (1)
- Assisting the doctor (1)

Respiratory and cardiac systems: 11
- Suctioning (7)
- Intensive care procedures (2)
- Code blue training (1)
- Cardiac equipment (1)

Gastrointestinal system: 8
- Levine tube feedings (4)
- Care of "ostomies" (3)
- Inserting levine tubes (1)

Since these learning needs are so diffuse and often specific to specialized areas, they could probably be met best through instruction on the job as the procedures are encountered and as they are deemed appropriate for the nurse aide role.

The attempt to identify the priority learning need for the group was not successful. Many did not specify what program they would like to have offered first, and the answers which were received were very diffuse. The program areas suggested as the very first program to be offered with the frequencies of response were as follows:

The patient as a person	13
Procedures, both simple and complex	10
Patient care	7
Medical-surgical nursing care	6
Orthopedic nursing care	5
Obstetric nursing care	4
Anatomy course	4
Care of the mentally ill	4
Team nursing	3
Care of the cardiac patient	2
Geriatric nursing care	2
Pediatric nursing care	1
Basic training for nurse aides	1
The best way to organize work and care for patients	1
Occupational therapy	1
Assisting the doctor	1

This data tends to confirm the information obtained from the check list of interests. Apparently the major interest is in learning about their patients and how to care for them.

Since 168 of the 195 respondents (86%) indicated they would like more learning opportunities than were presently available to them, most of the respondents could be considered potential participants in outside programs, assuming that all the other factors which control participation were favorable. Their reaction to questions about attendance and program scheduling are shown in Table 14.

TABLE 14. REACTIONS OF NURSE AIDES* EMPLOYED IN HOSPITALS TO ISSUES IN CONTINUING EDUCATION

Issues	Yes	No	No resp.
1. REASONS FOR TAKING COURSES IN AREA OF INTEREST:			
Personal satisfaction	154	35	6
To qualify for a raise in pay	113	77	5
To qualify for a promotion	84	103	7
To improve performance on present job	154	36	5
To get a job in another institution	19	170	6
2. REASONS WHICH HAVE, OR MIGHT, PREVENT ENROLLMENT IN CONTINUING EDUCATION CLASSES:			
Lack of money	130	63	2
Lack of time	76	117	2
Programs not available	39	153	3
Programs available do not apply to me or what I do	48	144	3
Programs available too far from home	19	173	3
Lack of interest in attending	10	181	4
Programs offered do not fit my time schedule	58	134	3
3. PREFERRED SCHEDULING OF CONTINUING EDUCATION OFFERINGS:			
Morning classes	51	134	10
Early afternoon classes (1:00 to 3:30 PM)	30	154	11
Late afternoon classes (4:00 to 5:30 PM)	46	140	9
Evening classes (6:00 to 9:00 PM)	63	120	12
Concentrated day long workshops	24	161	10
Two to four hours, once a week, over a period of time	70	116	9
4. FINANCIAL ASPECTS OF CONTINUING EDUCATION CLASSES:			
Would you be willing to attend at your own expense?	84	103	8
Would you be willing to attend on your own time?	146	44	5
Would you be more willing to attend if you had financial help?	151	39	5
5. CAREER PLANS:			
Are you thinking of changing to another type of work in the health field?	77	116	2
Are you considering entering a program to become a nurse?	82	110	3

*Total sample 195.

The predominant factors which had, or might, prevent them from attending programs were lack of money and lack of time, but the lack of time factor was less significant for the nurse aides than it was for practical nurses employed in hospitals. This probably could be explained on the basis of the age spans in the two samples. The percentage of nurse aides who were 41 years of age or over was 45% as contrasted with the 26% of the practical nurses who were in that age group. Since more nurse aides were beyond the period when family responsibilities are typically very heavy, they would be more free to attend outside activities. However, even though they might have more free time, finding programs available during their free time would still be a problem for some. In the sample, 75% would attend classes on their own time, but only 43% would attend at their own expense. Multiple schedules of programs would be necessary to meet the needs of the group.

The answers to the question about what other factors might prevent them from enrolling in programs suggested that some of the respondents interpreted this as referring to credit type classes. Since few continuing education programs have been offered for nurse aides in this area, they might not be familiar with this type of job-related learning. If continuing education programs were offered for them, efforts would have to be made to help them understand the nature and intent of programs. Some additional reasons offered as attendance barriers were:

Impending retirement	15
Limited educational background	5
Practical nursing program has a long waiting list	2
Not allowed to work full time and attend	2
The program in nursing (associate degree) is too expensive	1
No incentive for taking	1
Need information about programs	1

At the conclusion of the questionnaire the respondents were invited to make any comments or suggestions they wished about the educational needs of nurse aides and how they should be met. Many made no comments, and some answered extensively. Four spoke enthusiastically about having a program for nurse aides, and two felt that nurse aides should be given opportunities to learn regardless of weaknesses in their basic educational background. Other comments fell into three general categories: namely, views on training for nurse aides, views on the role of the nurse aide and views on continuing education for nurse aides. The central ideas were extracted and are presented in an abbreviated form but as nearly verbatim as possible:

VIEWS ON TRAINING FOR NURSE AIDES:

Need special classes for special areas and shifts	6
Need continuous freshening up on procedures and new things	3
Need more practice for nurse aides in aide class	2
Teach us the "why"	2
Need a medication course so we can observe and report	2
Teach us how to do things, not just books and bones	2
You learn more by actually doing	1
Need teaching on the job, reading procedures is not enough	1
Teach responsibilities so they will be more interested	1
Need to be more fully taught, but what we have is good	1
Programs we have are good, but we don't get to go	1
Need longer basic training than four weeks	1
Don't crowd it, need longer classes	1
Teach in a language we can understand	1
Good aides should have a part in teaching aides	1

Although these comments are few in number, they emphasize the need of nurse aides for help in the application of knowledge to practice. They are oriented toward "doing" and learning about their specific jobs.

There seemed to be some feelings about the role of the nurse aide and relationships with other members of the nursing team which would have implications for job satisfaction and indirectly about learning needs as follows:

VIEWS ON THE ROLE OF THE NURSE AIDE AND INTERPERSONAL RELATIONSHIPS:

Nurse aides do it all because nurses won't	4
Nurse aides should be trained to do what is expected of them	3
Only those who care about the sick should be nurse aides	2
Roles of nurses, nurse aides and orderlies should be clarified	1
Nurse aides should be taught their jobs are worthwhile	1
Nurses don't see the inportance of aides	1
Stress we can be of help to patients and families	1
Need better communication between nurses and nurse aides	1
Teach nurses and nurse aides to work together	1
Nurse aides should be allowed to participate in decisions made by the nursing team	1

Although it must be stressed that generalizations cannot be made to the total target population of nurse aides on the basis of the data obtained, it is possible that the occupational environment could be improved through better supervisory techniques by nurses and by clarification of roles for nurse aides.

The impact of continuing education programs on the role of the nurse aide was viewed within the context of status and remuneration by some. Although the prime motivators for attending programs were personal satisfaction and improved job performance for many, there would obviously be some for whom the prime motivator would not be altruistic in nature. The history of education for nurse aides has developed a strong expectation that the training of nurse aides is the responsibility of the employer to provide, and this expectation will be difficult to disrupt. The concept of individual responsibility for improved job performance which is taken for granted on the professional level may be less easily accepted at the vocational level.

In spite of the fact that comments of this type were relatively few, nevertheless this attitude will be a factor influencing attendance at programs conducted by an outside agency. These comments were as follows:

VIEWS ON CONTINUING EDUCATION FOR NURSE AIDES:

Attending classes should advance pay and promotion	3
Should be paid to attend or given pay adjustment after so many hours	1
People look down on us because we aren't trained	1
Nurse aides should be given a title to show what they can do	1

Learning Needs of Nurse Aides Employed in Nursing Homes

The framework of the occupational role of the nurse aide in nursing homes was established through a check list of functions completed by the supervisory personnel. The distribution of responses of these charge nurses showing their performance expectations is shown in Table 15.

TABLE 15. FUNCTIONAL AREAS OF NURSE AIDES EMPLOYED IN NURSING HOMES AS REPORTED BY WORK SUPERVISORS*

Functions	Yes	No	No resp.
Direct nursing care of patients	36	0	
Administering simple treatments	33	2	
Observing patients and recording on charts	15	20	1
Administering medications	15	21	
Planning nursing care	11	25	
Reporting to on-coming shift	10	25	1
Teaching patients and/or families	9	26	1
Supervising the work of others	8	28	
Functioning in a charge role on a unit	7	29	
Teaching personnel	7	29	
Evaluating nursing care	6	30	
Planning the work of others	4	32	
Functioning in charge role on two or more units	3	33	
Supervising and/or modifying menus	2	34	
Evaluating personnel	1	35	
Administering or monitoring complex treatments	1	35	
Reporting to, and taking orders from, physicians	0	36	

*Total of 36 work supervisors in the sample.

The functions endorsed most frequently were direct nursing care and administering simple treatments, just as it was in the hospital situation. Although comparison of roles in the two occupational settings is difficult because of the difference in the complexity of care in hospitals as opposed

to nursing homes, it was expected that the incidence of leadership type functions would be greater in nursing homes because of the staffing pattern.

This was partially confirmed in that a greater percentage of head nurses in nursing homes reported involvement of nurse aides in the following functions than their counterparts did in hospitals: namely, administering medications, observing patients and recording on charts, supervising the work of others and functioning as charge nurse on one or more nursing units. However, a greater percentage of head nurses in hospitals reported involvement of their nurse aides in administering or monitoring complex treatments, planning nursing care, evaluating nursing care, teaching patients or families, reporting to and taking orders from physicians, evaluating personnel, supervising or modifying menus and reporting to the on-coming shift.

Since the needs of patients influence the functions of nursing personnel, it would be logical to expect that nurse aides in nursing homes would be less involved in complex treatments, teaching patients and families and reporting to physicians because the regimen of care for most of their patients would not require these services. On the other hand, the nature of the staffing and the greater assumption of charge nurse responsibilities by nurse aides in nursing homes would lead one to expect that there would be a concomitant increase in activities related to a role involving planning and evaluating care, teaching and evaluating personnel, and reporting to the on-coming shift, which was not true.

A few additional duties of nurse aides, such as contributing to discussion in patient care conferences, reporting observations in writing and serving as physical therapy attendant were cited only once each. The complex treatments performed by nurse aides were variously reported as

hooking up oxygen tanks (1), keeping oxygen masks and cannulas in place (1), performing bladder irrigations (1), sterilizing equipment (1) and applying heat lamps (1).

Since the occupational roles of nurse aides in hospitals and nursing homes are similar and yet different in some respects, probably educational programs for nurse aides in nursing homes should be conducted separately so that teaching could be oriented to their specific needs.

Perceptions of the learning needs of nurse aides held by work supervisors in nursing homes. The directors of nursing in 11 of the 13 nursing homes indicated their nurse aides were trained in their own standard nurse aide training programs. Six used their own training manuals, four used the manual prepared by the Hospital Research and Educational Trust, two used the manual for geriatric assistants prepared by the Nursing Home Association and three utilized Red Cross training materials in addition to the manuals. Only one would not accept for employment nurse aides trained elsewhere; four required special training in the care of nursing home patients. All but one utilized apprenticeship-type learning, and none required completion of a Red Cross course, although one would accept this in lieu of other training.

Comparison of the responses of the head nurses on these items with those given by their respective directors revealed that some of them may perceive the preparation of their nurse aides differently. These differences were noted in six institutions, and they centered around whether they had a standard training program, whether nurse aides trained elsewhere were accepted for employment, whether special training was required in giving care in a nursing home and whether apprenticeship-type learning was utilized. These differences may be due to semantic problems in some areas.

Why should head nurses report they don't have a basic training program when their director says they do? Why should some head nurses report they don't require special training in the care of nursing home patients when their director says they do? Why do some head nurses feel that apprenticeship-type learning is utilized when the director says it is not? In some situations the perceptions were reversed. These verbal disagreements identified in the data are not nearly as important as the degree to which supervisory personnel in a given institution agree on their objectives in teaching and the methods of reaching them.

For example, the responses of the directors describing the frequency with which basic training programs were conducted cited "continuously" (3), "weekly" (2), "monthly" (3), "two to three times per year" (2) and "yearly" (1). Those reporting "continuous" training programs usually had one student at a time with the others ranging from two to 15 students. One student at a time would be typical for five of the training programs. Under these circumstances the learner is probably trained on the job in one-to-one relationships. The teaching content may be well identified, but the charge nurses may see this as apprenticeship-type learning rather than organized instruction.

Similarly, the director may expect special training in the care of nursing home patients to be provided on the job, but the head nurses may not see this as "special training". Indeed, it may not be unless it is carefully planned and executed.

Regardless of the approach to basic training, 18 of the supervisory personnel in the total sample of 36 did not feel their current efforts prepared nurse aides for the things they were expected to know or do on the job. Additional training was variously reported by individual charge

nurses in all the basic procedures, professional behavior, disease processes, geriatrics and administering medications and simple treatments.

Since 16 charge nurses did not respond to the question inquiring about difficulties encountered in conducting basic training programs, it is difficult to assess this aspect. However, variously reported were a lack of time for teaching (8), a poor attitude toward learning (2), lack of equipment (1), poor attendance (1), and depletion of staff for class (1).

More than three-fourths of the sample felt that the theory and basic nursing skills for nurse aides could be taught by an outside agency and that their staff nurses could then supervise the clinical practice. Furthermore, the majority felt this approach would be to their advantage for the following reasons:

Time saving for us; free us to do our own jobs	14
Elimination of underachievers and those not suited with less employment turn over	10
More thorough and correct instruction	2
Better informed staff about what was taught	1
Staff could build on the class teaching	1
Outside instructors more effective than the staff	1

The difficulties which could possibly be foreseen in such an approach were identified as follows:

Failure of teaching to accord with agency philosophy, approaches and routines	4
Transportation problems for participants	2
Level of instruction too advanced	1
Lack of communication between instructor and staff	1
Lack of follow through on material	1
Inappropriate class schedule	1

All of these potential problems could be eliminated through appropriate planning and implementation except for the transportation difficulties.

In the section of the questionnaire concerned with the programs offered for nurse aides in general, the directors indicated that programs

were conducted in all of the institutions involved in the study. However, there were six to nine failures to respond to each of the items regarding the nature and effectiveness of these programs. Since most of these failures to respond were from the charge nurse level, it was assumed that they did not feel knowledgeable enough to answer. Consequently, the responses of the directors only were used in the analysis of this section.

The programs in all 13 institutions were deemed to be concerned with the specific job role of the nurse aide, but only six programs were reported to be concerned with learning needs beyond the immediate employment situation. Joint attendance of nurse aides with other personnel was reported by seven.

Five directors felt their programs were effective in meeting the learning needs of their nurse aides, but three did not respond. Ten indicated that their nurse aides needed more learning experiences than were available to them, and two failed to respond to this question. In the total sample of charge nurses 36% felt their inservice education programs were not effective.

The programs suggested by both the directors and charge nurses to meet general learning needs of nurse aides which an outside agency could offer were as follows:

Advanced nursing care: 26
- Simple anatomy and physiology (1)
- Treatments:
  - Treatments, non-specified (3)
  - Catheterization (1)
  - Dressings (1)
  - Bladder and bowel training (1)
  - Blood pressure (1)
- Administering medications (4)
- Team nursing, including rapport with co-workers (2)
- Disease entities (2)
- Emergency situations (2)

Geriatric nursing:
- Care of the aged (2)
- Motivation and re-motivation (2)
- Effect of aging on the patient and family (2)
- Reality orientation (1)

Medical terminology (1)

Basic nursing skills: 11
- Basic care (6)
- Good nursing care (2)
- Personal hygiene (1)
- Body mechanics (1)
- Preventing decubitus ulcer (1)

The patient as a person: 4
- Psychological and emotional needs of nursing home patients (2)
- Compassion for patients (1)
- Meeting and conversing with patients and families (1)

The majority of the suggestions concerned teaching on an advanced level, but basic skill training was also important.

The invitation to make free comments about the role of the School of Health Occupations in continuing education brought responses from only ten participants in this sample. Ten directors and 16 charge nurses failed to comment. The only negative comment was one which merely indicated that "we do a competent job on our nurse aides". Six comments were favorable to the participation of the School pointing out that the School had the equipment and the personnel to conduct programs, that care could be upgraded, that such a program could be effective if done properly, and that continuing education is important. One cautioned against a pure hospital orientation in teaching; another didn't believe that nurse aides would attend.

Certainly, the involvement of the School was not heartily endorsed, but neither was it discouraged. The general attitude detected throughout the data was that it could be effective and it could help <u>if done properly</u>.

Self-perceived learning needs of nurse aides employed in nursing homes. All but 18 of the sample of 183 had attended educational programs offered by their employers. The nature of the responses regarding attendance at educational programs offered by outside agencies suggested that nurse aides in nursing homes were less knowledgeable about outside programs. Consequently, the data regarding attendance at these events were discarded as not valid. However, 11% of the sample indicated that in-service programs offered by employers had not met their learning needs. The 21 respondents whose needs had not been met identified the following difficulties:

Mechanical problems: 16
- Programs given when I have to work or sleep (9)
- Programs not often enough (4)
- Programs too short (2)

Level of offering inappropriate: 6
- Not informative enough (2)
- Covered what we already knew (4)

Quality of instruction inadequate: 5
- Not relevant:
  - Don't teach what we need (1)
  - Programs not for nursing home patients (2)
- Not well prepared: 2
  - Outdated (1)
  - Not interesting (1)

The mechanical difficulties of attendance seemed to concern more than any other aspect. In contrast, the nurse aides in hospitals were primarily concerned with the quality of instruction.

Almost three-fourths of the sample apparently felt adequate in their job performance since only 41 (22%) indicated the employer expected them to know or do things for which they had not been prepared. However, 86% of the sample, would like more learning opportunities than were available to them.

A check list of areas in which educational programs could be offered was presented to determine numbers which might be interested in each. The frequencies of responses arranged in order from the greatest number to the least is shown in Table 16.

TABLE 16. AREAS OF INTEREST TO NURSE AIDES* EMPLOYED IN NURSING HOMES AND INSTRUCTIONAL RESOURCES NEEDED FOR PROGRAMS

Areas	Interest			Instructional resources			
	Yes	No	No resp.	Class room	N.home class	Sup. pract.	Job sup.
Observing patients and reporting	155	26	2	x			x
Helping the dying patients and family	154	27	2	x			x
Why procedures are done	150	28	5	x			x
The patient as a person	150	30	3	x			x
How to do procedures	148	29	6	x	x	x	x
Mental illness	144	37	2	x			x
Growing old	144	37	2	x			x
Acute illnesses	143	38	2	x			x
Chronic illnesses	143	38	2	x			x
Being responsible for a group of patients	140	40	3	x		x	x
How nursing care is planned	136	44	3	x		x	x
Getting along with co-workers	131	50	2	x			x
Growing and developing as human beings	129	52	2	x			
What social welfare agencies help and how	120	60	3	x			
Administering medications	113	65	5	x		x	x
The child as a patient	111	68	4	x			x
How to participate in nursing conferences	108	72	3	x			x
Getting sick from being in the nursing home	106	75	2	x			x
Mother, infant and family	93	86	4	x			
How to supervise the work of others	87	91	5	x		x	x

*Total sample 183.

Although all the areas were of interest to large numbers, the highest frequency of positive response was in observing patients and reporting, and the lowest was in supervising the work of others. Apparently many of the same kinds of programs would be attractive to nurse aides in both hospitals and nursing homes, again pointing out the need for selective admissions to programs so that content would be relevant to participants and the occupational settings.

There was almost equal interest shown in understanding procedures and learning to do procedures. Of the 148 (81%) who indicated they would like to learn to do procedures only 88 reported they were involved in doing the procedures. Consequently, some of the procedures may or may not be within the scope of the job description of the respondents. The types of procedural learning needs, or interests, regardless of their appropriateness were as follows:

General procedures:
  Advanced: Total interested in advanced procedures was 70.
    Administering medications 25
      Medications (13)
      "Shots" (11)
      Z track injections (1)
    Catheterizations and bladder irrigations 18
    Non-specified 18
      Treatments (7)
      Physical therapy (6)
      Advanced nursing care (2)
      "Things" nurses do (2)
      Regular medical routine (1)
    Working with intravenous infusions 3
    First aid and emergencies 3
    Dressings 2
    Care of the patient with seizures 1

Basic procedures: Total interested in basic procedures was 47.
- Blood pressure 20
- Non-specified: 13
  - All basic (4)
  - Patient care (4)
  - General nurse aide (3)
  - Care of bed patients including skin care (2)
- Temperature, pulse and respiration 5
- Turning and lifting patients 3
- Enema and fecal impaction 3
- Vital signs 2
- Restraints 1

Advanced procedures for respiratory and cardiac systems: 10
- Administering oyxgen (5)
- Suctioning patients (3)
- Artificial respirations (1)
- External cardiac massage (1)

Advanced procedures for gastrointestinal system: 2
- Inserting levine tubes (1)
- Tube feedings (1)

The major area of learning needs for procedures was at the advanced level, but definitive program planning to meet these needs should only be done after greater clarification of the role of the nurse aide is achieved. Furthermore, the performance of advanced procedures is generally best taught in the occupational setting so that the scope of responsibility, methods and equipment are appropriate to the individual institution.

Approximately 26% of the sample was interested in instruction at the basic nurse aide level. In this area, instruction by an outside agency would be practicable.

A few programs could be taught at the theoretical level in the class room, but some would require planned, supervised clinical practice. Furthermore, most any instruction would be improved through the cooperation of supervisory personnel to assist participants to apply new learning to their practice.

Other learning needs not included in the check list, except indirectly, were mentioned by a few respondents. These included communicating with patients and understanding them (4), charting and medical abbreviations (2), and effects of medications and what should be observed in patients being treated (1).

Although a few respondents did not indicate which program they would like to have offered first, others made multiple suggestions. The frequencies on the check list of interests showed that hospital nurse aides and nursing home nurse aides were equally interested in learning opportunities, but the latter were more verbal in identifying what they perceived as priority needs. These suggestions for the first program to be offered were segregated into categories with their frequencies of appearance as follows:

Basic care for nurse aides: 45
- Good bedside care (28)
- A variety of nurse aide work (8)
- Training before you go to work (4)
- Making beds (3)
- Care of the deceased (1)
- Complete Red Cross Course ? (1)

Advanced nursing care: 34
- Administering medications and effect of drugs (13)
- Physical therapy training (4)
- First aid emergency program (4)
- Advanced nursing care (3)
- Blood pressure (2)
- Prevention and care of decubitus ulcer (2)
- Observing, reporting and charting (2)
- Emergency care for a choking patient (1)
- Treatments (1)
- Catheterization (1)
- Intravenous infusions (1)

Specific health problems: 28
- Geriatric nursing care (12)
- Care of mental and retarded patients (10)
- Care of chronic illnesses including cancer (3)
- Caring for the confused and unruly patient (1)
- Emergency care of stroke and heart attack victims (1)
- Symptoms and pathology (1)

The patient as a person: 11
- Understanding and compassion in care (6)
- Growing old (3)
- How to get along with patients better (1)
- Communicating with patients (1)

Career mobility interests: 8
- Practical nursing program (probably a part time program) (3)
- Caring for small children (1)
- Caring for retarded children (1)
- A Program to get licensed (?) (1)
- Learning to be a mortician (1)
- Setting up for deliveries and operations (1)

An attempt was made to determine the reactions of nurse aides employed in nursing homes to some of the issues regarding attendance at continuing education programs. Although a group of workers may be interested in learning opportunities, their actual attendance at programs may be contingent upon many factors. Table 17 shows the frequencies of positive and negative responses to some of these issues.

The two primary reasons for taking courses were personal satisfaction and improvement of present job performance. The reason least frequently cited was to gain employment in another institution. The distribution reflected the same order of responses as that found in the sample of hospital nurse aides, and slightly more than half in each sample would be influenced to attend classes if attendance were tied to pay scales.

TABLE 17. REACTIONS OF NURSE AIDES* EMPLOYED IN NURSING HOMES TO ISSUES IN CONTINUING EDUCATION

Issues	Yes	No	No resp.
1. REASONS FOR TAKING COURSES IN AREA OF INTEREST:			
Personal satisfaction	142	31	10
To qualify for a raise in pay	109	65	9
To qualify for a promotion	91	82	10
To improve performance on present job	148	24	11
To get a job in another institution	24	145	14
2. REASONS WHICH HAVE, OR MIGHT, PREVENT ENROLLMENT IN CONTINUING EDUCATION CLASSES:			
Lack of money	134	37	12
Lack of time	71	102	10
Programs not available	43	130	10
Programs available do not apply to me or what I do	21	153	9
Programs available too far from home	34	139	10
Lack of interest in attending	19	150	14
Programs offered do not fit my time schedule	51	121	11
3. PREFERRED SCHEDULING OF CONTINUING EDUCATION OFFERINGS:			
Morning classes	56	115	12
Early afternoon classes (1:00 to 3:30 PM)	40	132	11
Late afternoon classes (4:00 to 5:30 PM)	52	118	13
Evening classes (6:00 to 9:00 PM)	52	121	10
Concentrated day long workshops	13	154	16
Two to four hours, once a week, over a period of time	72	101	10
4. FINANCIAL ASPECTS OF CONTINUING EDUCATION:			
Would you be willing to attend at your own expense?	67	102	14
Would you be willing to attend on your own time?	131	42	10
Would you be more willing to attend if you had financial help?	139	33	11
5. CAREER PLANS:			
Are you thinking of changing to another type of work in the health field?	56	116	11
Are you considering entering a training program to become a nurse?	75	98	10

*Total sample 183.

Responses to questions regarding factors preventing attendance again reflected those of the hospital group, with lack of money and time being predominant. However, 71% would attend classes on their own time, and 37% would attend at their own expense. Preferences for morning, late afternoon and evening classes were almost evenly divided. Other factors which were cited as barriers to attending continuing education programs were as follows:

Limited educational background	7
Impending retirement	6
Baby sitting problems	2
Long waiting list for admission to practical nursing program	1
Holding two jobs, 6:30 AM to 11:00 PM	1
Lack of confidence in my ability	1
Social security regulations prevent me (?)	1

The responses in this section confirmed the previous findings that interest in learning is high, and that there are very real barriers to attendance at the vocational level.

Approximately the same percentages of the hospital and nursing home samples were interested in entering programs to become nurses, 42% in the hospital group and 41% in the nursing home group. The nursing home group showed slightly less interest in changing to another type of work in the health field, 39% in hospitals contrasted with 31% in nursing homes. Since nurse aides in hospitals are more likely to be exposed to a variety of different occupations in the health field, there might be a greater stimulus to think about alternative types of employment.

In the section of the questionnaire inviting free comments or suggestions about the educational needs of nurse aides and how they should be met, no remarks were related to conflicts in role or interpersonal relationships as were found in the hospital sample. The greatest number of comments were directed toward views on the training of nurse aides.

Although many made no comments, those that were elicited and the frequencies with which they appeared were as follows:

VIEWS ON NURSE AIDE TRAINING:

Train nurse aides before they go to work in nursing homes	8
Teach the direct care of patients	2
Have them follow another nurse aide for a few days	2
Teaching should be done by a nurse not an aide	1
Teach them what they will encounter as problems and advantages of caring for elderly	1
Teach people to wash hands before and after caring for patients	1
Nurse aides should know the basics of handling patients, taking temperatures, pulse, respiration and blood pressure, giving medications and charting properly	1
The first month should be training in class and on the floor; I had to learn without instruction	1
It is frustrating to be given a uniform and told to do something when I don't even know what they are talking about	1
I am doing a lot of work I am not really sure is OK	1
Most of us are doing a great job	1
Help the nurse aide learn to learn	1
Should have a refresher every 3 to 6 months	1
Have a class each day and give quizzes	1
Training is needed every week	1

VIEWS ON CONTINUING EDUCATION FOR NURSE AIDES:

Pay nurse aides or give them time off for attending	1
The employer should train	1
Programs should be given each shift so you get paid for attending	1
Hospitals won't admit you to training programs unless you have had three to four years experience	1
We need more programs	2

SUGGESTIONS FOR PROGRAMS:

All medication aides should have a course	1
Offer a general program	1
Help nursing homes care for the mentally ill	1
Classes should be interesting, illustrated and fact filled	1
Classes are needed in discussing patients' problems and behavior, handling situations with patients and co-workers, and supervision	1
There are two kinds of nurse aides: The "lifer" needs cause and and effect training; the "temporary" needs training on what to do	1
Train nurse aides to do more	1

Five of the respondents spoke about the need for opportunities for nurse aides to become nurses, including night school offerings and the right to try in spite of formal educational deficits in their backgrounds.

Summary of the Learning Needs of Nurse Aides

Although analysis of the data was difficult because of the diversity of needs expressed, the following findings have significance for an outside agency contemplating the development of a continuing education center.

Nurse aides employed in hospitals. 1. The data suggested that there are essential differences in the levels of utilization of nurse aides within hospitals and between hospitals depending upon the type of hospital and the type of nursing unit.

2. The level of utilization for some nurse aides represents a shift upward to include supervisory, planning, teaching and evaluating functions as well as involvement in complex procedures. The exact degree of responsibility in these areas could not be determined.

3. Two of the three respondents in the instructional group felt that an outside agency could teach the preclinical portion of basic nurse aide training and that the supervision for the clinical practice portion of the program could be provided in the hospital situation.

4. Instructional personnel cited only two immediate learning needs for nurse aides in general: a refresher course and a course in the care of the terminally ill. These were learning needs they felt were not being met through their own programs.

5. Although 47% of the supervisory sample felt their basic training programs for nurse aides were not effective, the kinds of additional

training they reported as needed were primarily of an advanced nature beyond that usually considered typical of a basic training program, thus raising some questions about realistic expectations for performance on initial employment.

6. A majority of the supervisory sample felt their general inservice education programs for nurse aides were effective, but 21% felt they were not.

7. The programs suggested by the work supervisors as being needed to meet urgent learning needs of their nurse aides in general were extremely varied ranging from basic nursing skills to skills and knowledge of an advanced nature. Although there was not a clear priority learning need established, more suggested advanced learning needs. Second in order of frequency cited was basic skill training.

8. The supervisory sample made no definitive comment about a role in continuing education for the School of Health Occupations. However, the number of programs suggested as appropriate for offering by an outside agency could be interpreted as tacit support for programs offered to supplement their own institutional programs.

9. Slightly more than half the nurse aides themselves were satisfied with their inservice education programs. However, 23% were not satisfied, and 25% did not respond to the item. The reasons given for the negative responses were primarily concerned with the quality of instruction and the level of instruction.

10. A strong majority (86%) of the nurse aide sample would like more learning opportunities, and 75% would attend programs on their own time and 43% at their own expense.

11. The three areas of interest checked most frequently by the nurse aides in hospitals were programs related to the reasons underlying procedures, helping the dying patient and family, and acute illnesses. However, strong interests were expressed in all the listed program areas, with least interest shown in the supervisory role. It was not possible to determine a learning need which could be termed a single priority learning need, but more interest centered around advanced nursing care.

12. Major interest was shown in learning about procedures of an advanced and specialized nature, but there was also interest in basic skills. In general, 70% wanted instruction in procedures.

13. There was evidence that nurse aides in the sample wanted to learn to do more. Some of the aspects of nursing they wanted to learn about, or learn to do, are probably not appropriate for the nurse aide role, suggesting some role confusion.

14. The primary barriers to attendance at programs were identified by nurse aides as being lack of time and lack of money, but the data tended to confirm that sufficient nurse aides in hospitals would be interested in attending outside programs to warrant offering them.

15. Although some of the learning needs identified could be met independently by an outside agency, it was clear that some needs could only be met in the employment situation, particularly training in complex procedures. There were many areas in which an outside agency could participate in offering programs, but various degrees of cooperation with employing agencies would be required in planning, implementing and evaluating programs if teaching were to be effective. Role clarification would have to preceed instruction.

Nurse aides employed in nursing homes. 1. The role of nurse aides employed in nursing homes has also shifted upward, but the pattern of utilitization differs somewhat from that seen in hospitals. Although more nurse aides were reported as assuming charge nurse roles, there was less incidence of planning, teaching, evaluating and reporting functions than was found in the hospitals. Other differences noted reflected differing needs of patients and differing staffing patterns. For example, more nurse aides administered medications, but they were less involved in performing complex procedures.

2. One-half the sample of work supervisors did not feel their nurse aides were adequately prepared for initial employment.

3. Three-fourths of the supervisory sample felt that an outside agency could teach the preclinical portion of basic nurse aide training and that supervision for the clinical practice portion of the program could be provided in nursing homes. The majority saw this approach as offering decided advantages to them in terms of saving time and nursing resources for other duties. However, they could foresee some difficulties if instruction was not geared to the occupational setting.

4. Failure of some charge nurses to respond to items regarding the nature of their basic nurse aide training and the effectiveness of their inservice education program suggestsa lack of knowledge about these areas. However, additional training described as needed for job entry was in all the basic procedures, professional behavior, disease processes, geriatric nursing care and administering medications and simple treatments.

5. In the sample of work supervisors, 36% felt their general inservice education programs were not effective in meeting the learning needs of nurse aides.

6. The areas suggested by work supervisors in which an outside agency could offer programs to meet immediate learning needs were extremely diverse, but analysis of these suggestions identified more needs of an advanced nature. However, 11 suggestions out of 41 made were for basic skills training.

7. The majority of the work supervisors did not make any definitive comments about the possible role of the School of Health Occupations in continuing education. Six respondents were favorable to involvement of the School in continuing education. Since the majority were favorable to involvement of the School in basic training for nurse aides, they probably perceive this as the greatest need. However, tacit endorsement could be detected in the suggestions made for programs to be offered.

8. Only a small percentage (11%) of the nurse aides indicated that their inservice education programs had not met their learning needs, but 33 did not respond to the item. The primary reasons given for negative responses was availability of programs. Only 11 respondents were concerned about the quality and level of instruction.

9. The same percentage of nurse aides in nursing homes and hospitals would like more learning opportunities: namely, 86%. Among the nurse aides in nursing homes, 71% would attend programs on their own time and 37% at their own expense.

10. The four areas of interest checked most frequently by the nurse aides were in programs related to observing patients and reporting, helping the dying patient and family, the reasons underlying procedures, and the patient as a person. However, strong interest was shown in all the listed possible programs, just as it was in the hospital sample. The

ordering of frequencies in each sample reflected the differences in the types of patient care.

The nurse aides in nursing homes were more verbal in identifying their priority learning needs than their counterparts in hospitals, but the diversity of their comments made it impossible to identify one priority need. More cited a need to learn basic nursing skills than any other single category. However, if all the categories identified in the analysis related to learning skills and knowledge of a more complex nature were combined, the predominant interests would have to be identified as advanced nursing care.

11. In the area of procedures alone, more were also interested in those of a complex nature. Some designated procedures inconsistent with the traditional nurse aide role. An interest in developing procedural skills was expressed by 81% of the sample.

12. The same primary barriers to attendance at programs were identified in the nursing home sample as had appeared in the hospital sample; namely, lack of time and lack of money. However, the data confirmed that there is sufficient interest to warrant the offering of programs in an outside educational setting.

13. A few of the desired programs could be offered independently by an outside agency, but more effective teaching would result if cooperative efforts were made with employing agencies in planning, implementing and evaluating programs. Again, role clarification would be a necessary precursor to instruction.

14. Since most nursing homes conduct their own basic training programs for nurse aides, a large drain on educational resources results. In the nursing homes where the nursing staff carries dual roles for instruction

and the administration of nursing care, and turn-over of personnel requires an on-going training program often for limited numbers, the burden becomes quite acute.

15. The learning needs of nurse aides employed in hospitals and nursing homes are widely diffused and reflect the differences in occupational settings. In spite of the fact that both groups were quite catholic in the interests expressed, there is evidence that programs would have to be carefully related to their jobs if teaching is to be effective. Nurse aides want definitive help in understanding their jobs and performing better.

Learning Needs of Operating Room Technicians Employed in Hospitals

The questionnaires administered to the operating room supervisors provided the background information about the role of the technician in the operating room. Since only two supervisors completed questionnaires, the data represent only two of the three general hospitals participating in the study.

Both of these work supervisors indicated that their technicians scrubbed for operations, with one reporting that they also played an assisting role in circulating for operations. Even though this is done under the supervision of a registered nurse, it represents an upward shift of job role. Ten of the 21 technicians in the sample indicated that circulating was included in their job functions.

Perceptions of the learning needs of operating room technicians held by instructional personnel in hospitals. The instructors in the hospital education departments varied in the amount of responsibility they carried

for the staff development of operating room technicians. One was not involved at all with this occupational group; one carried responsibility for their orientation to the hospital on employment; neither of the two with some involvement reported conducting separate education programs for them. One indicated that the technicians in her hospital did not need learning opportunities other than those available to them, and the other two did not respond. Apparently the learning needs of this occupational group are not a major responsibility of the educational departments represented in the sample.

Perceptions of the learning needs of operating room technicians held by supervisory personnel. Neither of the operating room supervisors returning questionnaires felt there was a discrepancy between the knowledge and skill of the newly trained operating room technician and the beginning level demands of the job.

In both institutions, regular education programs for technicians were conducted within the operating room unit, and the technicians also attended the general education programs conducted by the hospital education department with other levels of personnel. The supervisors felt that these educational efforts encompassed the specific job-related learning needs of the technicians as well as their learning needs of a broader nature. These programs were deemed to be effective. Consequently, they felt that operating room technicians did not need any learning opportunities other than those already available to them. As a result, there would be no need for involvement of the School of Health Occupations in this area in their views.

Self-perceived learning needs of operating room technicians employed

in hospitals. All of the 21 respondents in this group had attended in-service education programs conducted by their employers either often or occasionally, but ten of the group had never attended a program conducted by an outside agency. Since seven had only completed their basic training in the 1973-1974 time span, and few programs had been offered locally, this could not be considered unusual.

The item to determine the effectiveness of inservice education programs to meet their learning needs brought no response from six, but a total of 15 (71%) felt programs they had attended were not effective. Those who gave reasons for their negative assessment, presented the following:

Mechanical problems 4
- On cases and can't attend (3)
- Not enough programs to obtain needed points for certification (1)

Quality of instruction inadequate 3
- Not well prepared (1)
- Nothing accomplished (1)
- Not relevant to what I do (1)

Explanatory responses were too few to reflect the feelings of the total group, and one can only conclude that some who felt programs were ineffective declined to give reasons.

Three-fourths of the sample indicated they would like more learning opportunities than were available to them. Eight of the sample reported that their employers expected them to know or do things for which they were not prepared. This could not be related to length of time employed because only one of the six with less than six months experience felt this way. The others who felt the pressure of employer expectations had been employed for periods ranging from one year to six years. All those employed 11 years or over felt they met their employer's expectations.

Of those who had attended outside programs (11), five did not feel they had met their learning needs. The reasons for these failures, with a few offering more than one, were as follows:

Quality of instruction inadequate 6
- Not relevant to my job (3)
- Not well prepared (2)
- Too much arguing (1)

Mechanical problems 2
- Not enough programs (1)
- Given at times I can't attend (1)

Level of instruction inappropriate 1
- Too complex (1)

Again, the responses were too few to give a valid indication of difficulties perceived in the effectiveness of outside programs for this group.

The areas of interest were determined by a check list of suggested program areas, as it was in the other occupational groups. Table 18 shows the frequencies of responses to these suggestions:

TABLE 18. AREAS OF INTEREST TO OPERATING ROOM TECHNICIANS* EMPLOYED IN HOSPITALS AND INSTRUCTIONAL RESOURCES NEEDED FOR PROGRAMS

Areas	Interest			Instructional resources			
	Yes	No	No resp.	Class room	Hosp. class	Sup. pract.	Job sup.
Equipment, purpose, operation and care	18	3			x	x	x
Skills: why procedures are done	17	3	1	x			x
Life support measures	16	5		x			x
Legal aspects	15	6		x			
Operative procedures, effects and prognosis	14	7		x			
Responsibilities in circulating	12	9		x		x	x
Microbiology	12	9		x			
Skills: doing procedures	11	10			x		x
Interpersonal relations	7	14		x			
Functions in the recovery room	7	14		x			x
Institutional departmental relations	5	16		x			
Functions in the emergency room	5	16		x			x
Functions in the delivery room	2	19		x			x

*Total sample 21.

The greatest interest was in the purpose, care and operation of equipment, and the least interest was shown in learning about those things which would either draw them from the operating room or consider areas of learning only tangentially involved with the heart of their role, assisting at operations. Two respondents were interested in a course in pharmacology, which they explained by saying that they prepared drugs for administration without knowing the effect the medication would have or the

dangers. One wanted a course in human physiology.

The reasons underlying the procedures they perform was second in the order of interest, but only 11 actually felt the need to learn to perform procedures. Those who appended explanatory comments about the procedures they wanted to learn listed the following procedures:

Assisting at advanced surgical procedures 8
- Advanced surgical procedures (3)
- Neurovascular (2)
- Chest surgery (1)
- All different (1)
- Tympanoplasty (1)

Cardiopulmonary resuscitation 1

Surgical skin preparation 1

Preparing and assembling instruments and equipment 1

The types of equipment the respondents indicated a need to learn about were as follows:

Orthopedic tools 2
Stryker (frames) 2
Drills 2
Monitors 2
Swiss screw sets 1
Compression screw sets 1
Microscopes 1
All power equipment 1
Neurological equipment 1
Eye, ear, nose and throat equipment 1
Resuscitator 1
Cardiac arrest machine 1
X-ray machine 1
Bovie's 1
Gas machines 1
Pneumatic equipment 1

One-half the pieces of equipment mentioned were specified by the six technicians employed for less than one year. However, the others were identified by those who had been employed for varying periods up to 11 years. In the sample, eight indicated they wanted to learn in this area

but did not specify the type of equipment. This type of response was more typical of the experienced technicians. Learning about new equipment or refreshing knowledge and skills about equipment previously acquired is apparently a major learning need, but one which requires on-the-job instruction.

Programs designed to meet learning needs in some areas could be offered independently by an outside educational agency, but others would require the cooperative involvement of both the educational agency and the employing agencies to insure the inclusion of appropriate content and the application of learning to the job. However, the number of technicians in the sample and the frequencies of those expressing interest in the suggested areas might indicate that it would be difficult to attract enough participants to finance the offering of programs unless additional technicians could be drawn from the total of 50 employed as operating room technicians in the city.

An attempt to gain more definitive information about what the respondents perceived as a priority learning need was not successful because of the diversity of responses suggesting the first program to be offered. Following are these suggestions:

Pharmacology for the technician 4
Operations, effects, prognosis, reasons for performance 3
Procedures in specialty areas, instruments, skills 2
Setting up for operations 1
Best care for patients 1
Best way to acquire more skill 1
Ways to make your job more interesting 1
New sutures 1
New techniques 1
Workshops and institutes 1
Legal aspects 1

There was less evidence of interest in career mobility in the sample of operating room technicians than was found in either the nurse aides or the practical nurses. For the majority of the group the occupational role of technician is seen as terminal, and continuing education would constitute the primary avenue of development. The responses to those items related to issues in attending educational programs are shown in Table 19.

TABLE 19. REACTIONS OF OPERATING ROOM TECHNICIANS* EMPLOYED IN HOSPITALS TO ISSUES IN CONTINUING EDUCATION

Issues	Yes	No	No resp.
1. REASONS FOR TAKING COURSES IN AREA OF INTEREST:			
Personal satisfaction	18	2	1
To qualify for a raise in pay	13	8	
To qualify for a promotion (added job responsibilities)	7	13	1
To improve your performance on your present job	20	1	
To acquire credits for re-certification	12	9	
To prepare for a job in another institution	4	16	1
2. REASONS WHICH HAVE, OR MIGHT, PREVENT ENROLLMENT IN CONTINUING EDUCATION CLASSES:			
Lack of money	10	11	
Lack of time	13	8	
Programs not available	14	7	
Programs available not relevant to me or my job	7	14	
Programs available but too far from home	8	13	
Lack of interest in attending	4	17	
Programs offered do not fit my time schedule	12	8	1
3. PREFERRED SCHEDULING OF CONTINUING EDUCATION OFFERINGS:			
Morning classes	2	19	
Early afternoon classes (1:00 to 3:30 PM)	1	20	
Late afternoon classes (4:00 to 5:30 PM)	8	13	
Evening classes (6:00 to 9:00 PM)	13	8	
Concentrated day long workshops	9	12	
Several hours, once a week over a period of time	11	10	
Several hours at a time, several times a week	4	17	
Joint programs with registered nurses	9	12	
4. FINANCIAL ASPECTS OF CONTINUING EDUCATION CLASSES:			
Would you attend classes at your own expense?	15	6	
Would you attend classes on your own time?	20	1	
Would you be more willing to attend classes if you had financial help?	14	7	
5. CAREER PLANS:			
Are you thinking of changing to another type of work in the health care field?	4	17	
Are you considering entering a training program for another type of work?	2	18	1

*Total sample 21.

Improved performance on the job and personal satisfaction appeared to be the primary motivators for taking courses for this group, and preparing for a job in another institution offered the least incentive. Since nine indicated they would not take courses for re-certification requirements, the continuing education requirement of the Association of Operating Roon Technicians is apparently not considered imperative.

Lack of the availability of programs presented the primary problem in attending programs, and lack of time appeared as second in the order of prominence cited, with lack of money fourth. In contrast, lack of money was the primary barrier to nurse aides, and it was second and third in the order of concern to practical nurses in nursing homes and hospitals respectively. However, attending classes on their own time would be acceptable to 20 (95%) of the technicians and attending at their own expense to 15 (71%). Financial help would make attendance more feasible for 14 of the group.

The preferred scheduling of continuing education programs was for evening classes offered several hours once a week, but some expressed preferences for the other schedules. Just as in the other groups, multiple program offerings would be necessary if the needs of the total group were to be served. Only nine of the 21 would like programs scheduled jointly with registered nurses.

The responses to the invitation to comment on the role of the School of Health Occupations in meeting the continuing education needs of operating room technicians brought a direct statement of support from three and indirect support from five through program suggestions and a statement of the problems in getting the 30 clock hours of education required per year. The one negative comment was that continuing education didn't

"make any difference in your status where she worked".

One of the programs suggested was to take each operative procedure in terms of why it is done, the anatomy, prognosis, length of stay, activity after surgery and special needs of the patient. This idea was supported by suggestions to have programs to follow-up their patients and to review anatomy and to study the drugs they use. If these ideas are considered with the programs identified as the first offering desired, it appears that for some technicians there is a need to put their specialized skills into perspective as a means instead of an end, somewhat like the piece worker in the factory who never has an opportunity to see how his contribution fits into the total picture.

Summary of the Learning Needs of Operating Room Technicians Employed in Hospital

1. The performance of the new operating room technician was deemed adequate for initial employment by the two respondents in the supervisory sample, but an upward shift in job role was noted in one institution.

2. Both of the work supervisors felt that the learning needs of their technicians were adequately met in the employment situation.

3. A majority of the operating room technicians themselves (71%) felt their in-agency programs were inadequate to meet their needs. Although a few attributed this to the fact that they could not attend when programs were offered, there was some concern expressed about the quality and level of instruction. One pointed out that there weren't enough programs to meet the continuing education requirements of the Association of Operating Room Technicians.

4. Although there were a few outside programs available, these were often given out of the city and inaccessible to some. Of those who had attended outside programs, nearly half found them to be ineffective learning experiences. Inadequate quality of instruction and inappropriate level of instruction were cited most frequently as problems.

5. Three-fourths of the sample (17) would like more learning opportunities than were available to them, and 95% would attend programs on their own time, and 71% at their own expense.

6. Learning about equipment and the reasons underlying procedures held the highest frequencies of stated interest, but suggestions for the first program to be offered were too scattered to identify a priority learning need.

7. Since many learning needs of operating room technicians are highly specialized involving complex equipment and often needs to learn specific things within the job role are expressed by only a few respondents, a large portion of their learning needs probably could be met best in the job situation. However, there are areas in which an outside agency could offer programs to meet learning needs through supplementary efforts.

8. Since the sample was small, it could not be determined whether there would be enough potential participants in programs to make offerings for this group by an outside agency financially feasible. An additional factor to be considered would be the need for multiple scheduling of individual programs which would reduce further the number attending any given program. However, a trial offering would be warranted to further test for interest.

All of the occupational groups studied identified extremely diverse needs, and work supervisors did also. The needs reflected many factors which influence the perceptions of needs. The variety of occupational settings, individual supervisory expectations, upward shifts in job roles, and the characteristics of individual practitioners, all create a working environment in which the need to learn becomes a constant force.

In spite of the concentrated efforts of employing agencies to offer planned learning experiences, the learning needs of relatively large segments of all groups were not being met according to their own perceptions and those of the work supervisors.

CHAPTER VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of the study was to develop a model for the establishment and administration of a continuing education center for the health occupations at the vocational level. Since the operation of a continuing education center must reflect the needs of the community it seeks to serve, the first phase of the project was to select three occupational groups and survey the continuing education needs present. The target groups chosen were licensed practical nurses, nurse aides and operating room technicians employed in hospitals and nursing homes in one city. It was planned to study other occupational groups and settings at a later date.

Since these target groups were considered to be fairly representative of health occupations prepared through vocational training, the findings would serve as the framework through which the following contributing objectives could be achieved:

1. To identify types of continuing education needs manifested and the numbers of potential participants.

2. To determine which needs could be met through vocational education offerings.

3. To develop guidelines for establishing and administering a continuing education program for the health occupations at the vocational level.

The purposes of the projected second year of the study would be to expand the survey of learning needs, to establish the continuing education center, to conduct selected programs on the basis of the needs identified, and to test the guidelines for the center through actual operation.

A survey of related literature revealed that few definitive efforts have been made to identify the continuing education needs of the health occupations at the vocational level or to establish a system through which needs could be met, in spite of the fact that major efforts have been expended for this purpose at the professional level. While all health care facilities probably conduct staff development programs for their personnel, at least in varying degrees, the pressures for additional offerings to accomodate the many occupational groups, to improve the quality of health care, and to meet external standards of various state and federal agencies for specific training make it very clear that an organized system for continuing education is needed to augment the efforts of employing agencies.

In order to determine the learning needs of the three occupational groups to which the continuing education center would first address itself, questionnaires were administered to 195 nurse aides, 88 practical nurses and 21 operating room technicians employed in hospitals in one city. In nursing homes in the same city questionnaires were administered to 183 nurse aides and 34 practical nurses. Since the perceptions of the learning needs of these groups held by instructional and supervisory groups were deemed important to understanding those factors which influence learning needs, questionnaires were also administered to three educators in staff development departments, two operating room supervisors and

43 head nurses employed in hospitals; in nursing homes, questionnaires were completed by 36 charge nurses, including directors of nursing and registered nurses functioning in a supervisory capacity.

The learning needs identified were analyzed in terms of numbers, types and priorities of needs expressed, congruence of perceptions of workers and supervisory and instructional personnel and the potential of the School of Health Occupations to participate effectively in meeting the learning needs.

The return of questionnaires was expected to be about 40%, and this generally held true except for nurse aides and practical nurses employed in hospitals where the returns were 25% and 35% respectively. Although this constituted a primary limitation, it did not invalidate the purpose of the study. However, no generalizations could be drawn to the total target populations on the basis of the study.

Furthermore, the research design was made very simple, involving only frequencies and percentages instead of a statistical analysis because the primary concern centered around how many wanted to learn and what they needed to learn.

Although most of the data could be analyzed by simple data processing, some free response items required individual analysis. These free responses did complicate the analysis phase, but they provided valuable information about the occupational and learning climates in which the center would operate. In spite of the acknowledged difficulties, the following general findings were made:

1. The hypothesis that learning needs identified would range from basic performance deficits to needs for skills and knowledge beyond initial job preparation was confirmed.

Factors which apparently influenced the learning needs of the samples were upward shifts in job role, differences in individual supervisory expectations for job performance, variations in utilizations patterns within and between occupational settings, and the heterogeneity of the educational and experiential backgrounds of the workers.

2. The hypothesis that workers with more extensive preparation for initial job entry would perceive more learning needs than those with short preparation courses was not confirmed.

It was incorrectly assumed that more knowledge and increased responsibilities in job roles at the higher level would sensitize the worker to more learning needs. Although the highest percentage wanting more learning opportunities was among practical nurses, the lowest appeared in the sample of operating room technicians. Those with more extensive preparation tended to state more definitive needs, but those with less preparation did not state porportionately fewer needs.

3. The hypotheses that workers in the health occupations employed in hospitals would perceive less unmet learning needs than those employed in nursing homes was not completely confirmed.

Greater percentages of the sample of both practical nurses and nurse aides in nursing homes identified more priority learning needs, but they did not identify more learning needs in general. In the area of development of procedural skills, a slightly lower percentage of practical nurses in nursing homes indicated they had learning needs, but the procedures which practical nurses in hospitals specified as learning needs were more varied and complex. The percentage of nurse aides wanting more learning opportunities was the same in both occupational settings.

Assessment by the workers of the effectiveness of their inservice education programs in meeting their needs showed that a higher percentage of practical nurses and nurse aides in hospitals deemed their programs inadequate. Obviously, the variations and complexity of care found in hospitals are important factors in creating learning needs. Although hospital employees might have more learning opportunities, their needs are more difficult to meet.

4. The hypotheses that the perceptions of learning needs held by practical nurses and nurse aides would be dissimilar to the perceptions held by supervisors could neither be confirmed nor rejected.

It became evident that the only valid comparison which could be made would be between groups of workers and their specific supervisor because of the extreme diversity of learning needs expressed by both. However, the percentages of workers compared with the percentages of work supervisors who deemed their inservice education programs inadequate were very close except in the case of nursing home aides and their supervisors. The nurse aides were more satisfied with their programs than their supervisors. Generally, practical nurses in both hospitals and nursing homes placed team leading and management as a high priority while only a few supervisors deemed it an urgent learning need.

When the learning needs for nurse aides in hospitals were grouped into two general categories of advanced nursing care and basic nursing care, both the workers and the supervisors identified advanced nursing care as the priority need. In nursing homes, the largest single group of nurse aides cited basic nursing care as priority need, but when all complex learning needs were combined the priority shifted to advanced nursing care. The nursing home supervisory sample cited advanced nursing

first and basic nursing care second as needs. However, within these two major categories the individual needs were extremely diverse in both hospitals and nursing homes.

5. Similarly, the hypotheses that the perceptions of learning needs held by practical nurses and nurse aides would be similar to those held by instructional personnel in hospitals could be neither confirmed nor rejected.

The sample of instructors was too small for the purpose. However, the instructors did not identify team leading as a priority learning need as the practical nurses did, but they did perceive instruction in advanced nursing for nurse aides as urgent, just as the nurse aides did themselves.

6. The hypothesis that the learning needs of operating room technicians as perceived by the technicians and their supervisors would be dissimilar was confirmed.

The operating room supervisors felt that the learning needs of operating room technicians were adequately met, but the technicians themselves did not. Three-fourths of the sample wanted more learning opportunities, and 15 out of 21 deemed their inservice education programs ineffective in meeting their needs.

7. The number of practical nurses, nurse aides and operating room technicians who expressed learning needs and willingness to attend on their own time and at their own expense would justify the offering of programs for these groups. However, the operating room technicians as a group are small, and it could be less clearly predicted whether programs for them would attract a sufficient number to make them feasible.

8. The educational resources of the School of Health Occupations were found to be adequate for selected offerings on an experimental basis.

The kinds of learning needs identified could be classified in three basic categories: namely, those which an educational agency could offer independently, those which would require varying degrees of cooperative planning and implementation by the educational agency and the employing agencies, and those which could best be met in the occupational setting.

9. The support of instructional and supervisory workers for involvement of the School of Health Occupations was varied. It probably could be anticipated that support from the supervisory group in nursing homes would be greater than that from hospitals.

Conclusions and Their Implications for the Establishment of a Continuing Education Center

The design of the study and the nature of the returns precluded drawing generalizations to the total target populations. Since all members of the occupational groups employed in local hospitals and nursing homes were invited to participate, the assumption probably could be made that those who did participate were most interested in continuing education. However, even this assumption could entail risk. The learning needs identified can only be described as characteristic of the respondents in the samples and the specific locales from which they were drawn.

The study was, at best, only exploratory and descriptive. In spite of this, the perceptions of learning needs, the problems previously encountered in meeting needs, and the characteristics of the workers and occupational settings derived from the data can serve to guide the establishment of a continuing education center and the development of programs for initial offering. On this basis, the following conclusions were drawn:

1. If an educational agency is to be responsive to the learning needs

of health occupations at the vocational level, the establishment of a "learning center" rather than a "continuing education center" is preferable.

In the three occupational groups studied, the learning needs ranged from simple basic skill training to advanced skills and knowledge. Furthermore, basic training programs for those occupational groups typically prepared in short courses are conducted by each institution as required. This creates a drain on the educational resources and an additional load on the staff, particularly in those agencies which do not have separate personnel hired for instructional duties.

Although there is no real agreement on the definition of continuing education, it seems clear that a "learning center" would permit an approach to programming which could be flexible enough to allow either basic training programs or programs extending beyond initial preparation for job entry. There is evidence that there is a need for basic training programs in several occupational groups, including nurse aides, food service supervisors, medication aides, activities directors and others.

2. The potential involvement of the School of Health Occupations in staff development is viewed with mixed reactions, but there is evidence that there is a need for a source of instruction for the health occupations at the vocational level to supplement in-agency programs.

As with any innovation, opinions are divided concerning whether the idea is sound. The commitment of the proposing agency, the ability of the proposing agency and all the potential problems of implementation loom large at the time of initial exploration of the idea. As might be expected, the institutions with well developed educational departments tend to see the learning needs of their personnel as being rather adequately met. Consequently, a learning center in an educational agency would be perceived

by them as a peripheral source of learning, which might be helpful but is doubtful.

Supervisory personnel in nursing homes can perceive a lightening of their instructional load if an outside agency becomes involved. They can also perceive problems of implementation, but the idea is more attractive to them because of the immediate results which can be foreseen.

A gradual, progressive involvement of the School with evidence of effective instruction in programs may be the single most important factor sustaining the learning center.

3. While all the occupational groups studied revealed a high interest in learning, there are real barriers to attending programs at the vocational level.

On the basis of the numbers in the samples expressing interest, programs would attract sufficient participants to make them feasible, but lack of time and lack of money were of paramount concern to the majority of respondents. Since health care agencies must provide staffing around the clock, many of those who would like to attend programs find their work hours prohibitive. A multiple approach to scheduling a program could solve this difficulty if there were enough interested to warrant the extra offerings. In addition, the salary levels of these occupational groups make them less able to finance their involvement in educational programs.

Nevertheless, there are sufficient numbers in the samples interested in attending and willing to pay their own expenses to warrant offerings for nurse aides and practical nurses. The small number of operating room technicians makes offering programs for them a more doubtful venture. In any case, the approach to scheduling all programs would have to be very flexible.

Basic training programs for initial job entry would pose special difficulties. The training of nurse aides is a case in point. New nurse aides are usually employed and paid while learning. An open program offered to anyone interested would create a pool of at least partially prepared people for jobs as they become available, but few could afford the training unless jobs were assured them.

Added to this aspect would be the need to provide actual practice in a health care facility at the time of training if instruction is to be effective. A delay between instruction and job entry would result in significant loss of knowledge and skill. If an educational agency provided supervised practice through arrangements with health care facilities, it would increase the cost of the program to make it even more prohibitive to the less affluent.

All avenues of funding for programs would have to be explored including individuals, health care agencies and governmental resources. Tuition, in any case, would have to be kept as low as possible. Some health care facilities do have programs to help pay tuition for their personnel, but these resources are limited. In most cases, the individual student will pay expenses. Consequently, the degree to which programs prove to be valuable learning experiences and can be offered at times convenient to participants will be factors in the degree to which learners can be attracted and the center will prove viable.

Health care institutions have long assumed the responsibility for training their personnel, and a few members of the groups being studied made it clear that they felt the employers should continue to do so. The concept of individual responsibility for job competence may be difficult to establish at the vocational level. It may be that alternative rewards

may be necessary to encourage attendance at programs. Recognition of attendance, assistance in utilizing new learnings and the establishment of definite relationships between taking courses and career mobility might be helpful. However, some administrators reflected in direct discussions that these kinds of rewards might result in a focus on increased pay scales and sharper lines of demarcation between what individual workers may or may not do, thus causing more problems for employing agencies.

4. Unless instructional efforts really influence the quality of care rendered to patients there could be little justification for the offering of programs by an outside educational agency.

Although this is the most important reason for involvement of the School of Health Occupations in this area of education, it also presents the largest problems to be solved. Since learning needs identified are so extensive, any educational agency could conceivably offer programs with a high degree of face validity in meeting needs. However, real evidence is needed that programs do result in improved performance on the job. Difficulties can be foreseen in the on-going identification of learning needs, planning of appropriate program content, providing for opportunities to apply new learnings in practice and evaluating the effectiveness of programs. The solving of problems in these areas will depend on the extent to which cooperative relationships can be established with employing agencies.

Learning needs change, and some on-going mechanism would need to be developed to keep the educational agency informed of needs so that program planning would be appropriate. This should include perceptions of learning needs held by work supervisors as well as the workers since there is

evidence that there is lack of congruence between them. Periodic surveys of workers should continue, and a coordinated approach to planning programs so that in-agency and outside agency offerings were mutually supportive would make the most effective use of learning resources.

Part of the difficulty in planning appropriate content for courses stems from the need for clarification of roles, particularly the nature and degree of responsibilities involved in the upward shift of functions. Clearly, many work supervisors feel that initial training programs for nurse aides and practical nurses are inadequate. Their expectations are not consistent with present basic training programs. Since agreement could not be found in the samples on the nature of the deficits or programs to remove them, an outside course would probably be no more effective than existing programs, unless some clear identification of job roles could be reached. The same difficulty would be present in courses offering advanced training.

Whether health care agencies, particularly the supervisory levels, wish to be involved with an outside agency in this kind of activity is not clear. In an open meeting with administrators, directors of nursing and instructional personnel to discuss the role of the School in training members of the health occupations at the vocational level, it appeared that hospitals would be less interested in this approach than nursing homes. However, the learning needs identified were so diverse that instructional programs deemed satisfactory by some work supervisors would appear inadequate to others in both occupational settings.

Advisory committees to plan and evaluate programs would help, but as long as major differences exist in expectations for performance there will be differing opinions about the quality of instruction.

Another anticipated difficulty would involve the provision of opportunities to apply new learnings in practice in those teaching situations which should culminate in specifically improved job performance. Based on the learning needs identified in the samples, some programs could be offered independently by an outside agency, such as the psychology of illness or common health problems, but many programs should be followed by specific assistance to transfer the new learning to the job. In basic training programs, this would involve specific planned and supervised learning experiences in carrying out the job role. In advanced training programs, the follow up might range from discussion with the work supervisor to clarify agency practices to a fully supervised learning experience.

Some supervisory personnel feel that an outside agency should teach principles and general concepts which the participants in programs could then adapt to their own employment settings. Unfortunately, this is the weakest link in educational, job-related programs because there is little assistance given to the worker in making this transfer. Indeed, the findings from the study, suggest that some work supervisors do not know what is being taught in their inservice education programs.

Similarly, evaluation of the effectiveness of programs should involve both the educational agency and the employing agencies and the learner. Means of developing a cooperative approach to identifying learning needs, planning, implementing and evaluating programs would probably come through trial and error depending on the degree of involvement which health care agencies feel it is worth their while to establish. At the very least, an attempt should be made by an outside educational agency to inform work supervisors when members of their staffs are taking courses and what the

instruction involves.

5. Applicants for admission to programs should be screened carefully to insure that their expectations for learning are consistent with the nature of the programs being offered.

It is clear that few programs should be planned for workers in a given occupational role coming from several employment settings. The learning needs of hospital workers do in most cases differ from those of workers in nursing homes, and learning needs for a given role within an institution reflect the many kinds of specialized care given.

The dissatisfactions of respondents in the study with the level and relevance of programs they have attended reveal the need for a matching of participants to programs if they are to receive the definitive help they are seeking.

A careful record keeping system of both programs and participants will be necessary. Some learners will be concerned with attending programs approved by associations with which they are affiliated; some will be required to attend programs to meet externally imposed standards for employment; some will be seeking avenues of career mobility; others will simply be interested in learning anything "new". However, all will judge programs on the basis of whether the instruction meant anything to them and the job they perform.

If the learning center becomes quite active, it is conceivable that members of the health occupations at the vocational level would use it to secure guidance in seeking the educational experiences they feel appropriate for their needs. For this reason, the learning center would assume a guidance role, and it should be prepared to provide information about

the total range of job-related programs in the area and to refer workers to the sources most appropriate for their learning needs.

6. A learning center seeking to participate in staff development efforts for the health occupations at the vocational level will have to assume the characteristics of an evolving source of instruction rather than an immediate actuality.

Innovative approaches in this form of education are needed, but change is accepted very slowly. The responses of employing agencies and learners will be good only if the quality of instruction takes precedence over the offering of programs for the sake of programs.

In spite of the fact that the faculty of the School of Health Occupations found it difficult to conceptualize the exact role the School could play, it must be admitted that no one else can either. However, their support and the scope of the educational resources of the School would be positive factors in the establishment of the learning center. Some limitations will be imposed on the operation of the center because of the unique aspects and requirements for education in the health occupations which are not found in other vocational education. However, the interest and support of the School Corporation and its desire to develop educational programs of a high quality would create an environment in which the center could identify problems and find solutions.

Although the conclusionsdrawn from the findings are restricted by the limitations inherent in the study, some guidelines for the establishment and operation of a learning center for the health occupations at the vocational level have become evident. Potential problems were pointed

out rather than real answers being provided, but the effectiveness of the learning center will depend in a large measure on the willingness of those involved in its operation to set standards, establish guidelines and evaluate conscientiously.

On the basis of the findings of the study it is recommended that the Evansville School of Health Occupations Learning Center be established and tested in operation through offering selected programs to meet learning needs identified in the study.

The following guidelines were developed, and they reflect the problems locally encountered in conducting educational programs in health care facilities as well as suggestions and standards gleaned from related literature. Subsequent testing in operation will undoubtedly suggest needed modifications. Since the learning needs in the occupational groups studied are so diverse, a variety of approaches to instruction will be needed. Consequently, guidelines must be specific enough to set standards and procedures without creating a restrictive educational climate.

Evansville School of Health Occupations Learning Center

Philosophy and Objectives

The Learning Center is an integral part of the School of Health Occupations in the Department of Adult and Vocational Education in the Evansville-Vanderburgh School Corporation and functions within the framework of the philosophy of the public school system and the philosophy of the Evansville School of Health Occupations.

The basic commitment of the School is to provide pre-service training programs in selected health occupations at the vocational level, but the faculty also believes that the School has a responsibility to contribute to the improvement of the quality of health care in the area it serves through the maintenance of a learning center for those members of the health occupations at the vocational level who have demonstrated learning needs which the School has the potential to meet and which are not being adequately met through other resources.

Therefore, the general purpose of the Learning Center is to provide organized learning experiences for those vocational health occupations which need opportunities to either acquire and maintain proficiency in their roles or to keep pace with new developments which affect their practice.

Since local educational resources are available to meet the learning needs of professional members of the health occupations, program offerings will be at the post-secondary level but less than the associate degree level. Educational resources are a precious commodity, and the efforts of all persons and agencies committed to this kind of education

should be coordinated so that maximum benefits are accrued with the most effective and efficient means possible.

The scope of the involvement of the Learning Center should be flexible to reflect the wide variety of learning needs of the groups it seeks to serve. Identification of learning needs should result from careful assessment of all available information including the viewpoints of employers as well as employees. Adult learners learn best when they are actively involved in all phases of the educational process.

Since the primary concern is to assist the worker to perform his job more effectively and to grow and develop as a member of the health occupations, offerings may range from initial, short term training programs to advanced educational experiences based on the initial job preparation. The Learning Center should be involved with, but not limited to, continuing education in the restrictive sense of the term.

The ultimate test of the effectiveness of job-related instruction is whether the learners demonstrate changes in behavior in successfully applying new knowledge and skills in practice. For this reason, a link between teacher, learner and work supervisor is very important. A close working relationship between the educational agency and employing agencies should be established as much as possible.

A decision to offer an educational program can only be made after the nature of the learning need is fully assessed. Some learning needs can best be met in the employment situation; some can be met effectively through the independent efforts of an educational agency; some require a combination of the efforts of both to achieve effective learning.

To fulfill its responsibilities in the field of continued learning for the health occupations at the vocational level, the Learning Center

establishes the following objectives:

1. To actively assess the learning needs of members of the health occupations at the vocational level through independent review as well as cooperative study with others.

2. To maintain on-going programs of learning experiences at the vocational level which meet internally developed standards of quality and any relevant standards advocated by outside agencies and associations.

3. To provide an advising service to workers to assist them to identify their learning needs and to locate appropriate learning experiences either in short term courses, credit courses or career ladder programs.

4. To plan, implement and evaluate educational offerings which are relevant to identified needs and consistent with the educational resources of the Learning Center.

5. To work cooperatively with other educational agencies and all interested health care agencies to improve the quality of health care rendered through the offering of instructional programs.

6. To continuously evaluate the effectiveness of the Learning Center and its relevance to the needs of the community.

Evansville School of Health Occupations Learning Center

Guidelines for Administration of the Learning Center

1. The Learning Center functions as a department of the School of Health Occupations under the supervision of the Director of the School.

2. Lines of authority and responsibility extend in the regular channels of the Evansville-Vanderburgh School Corporation through the Director of Practical Arts, Adult and Vocational Education.[1]

3. Rules, policies and procedures directing the operation of the School of Health Occupations are also applicable to the Learning Center, subject to permissable modifications to implement administration.

4. An Advisory Committee on Continued Learning with broad community representation acts in an advisory capacity in the matters of policy and development concerning the Learning Center.

5. Membership on the Advisory Committee for Continued Learning shall provide representation from the following areas:

A. School of Health Occupations

B. Continuing education in nursing

C. Allied health education

D. Staff development departments in health care institutions

E. Administration in health care facilities

F. Supervisory staff in health care facilities

G. Others to be added as their involvement in health education becomes relevant to the role of the Learning Center

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[1]See Appendix D.

6. The objectives of the Advisory Committee for Continued Learning shall be:

A. To make recommendations concerning the role of the Learning Center in meeting the needs of the health occupations at the vocational level in the community.

B. To share knowledge about educational needs in the area and efforts of other educational resources so that activities will be coordinated.

C. To participate in the evaluation of the general effectiveness of the Learning Center.

D. To review the representation on various planning committees to insure broad community involvement.

E. To review program proposals as submitted by planning committees to insure the pertinence of programs to area needs and the adequacy of the educational base.

F. To interpret the activities of the Learning Center in their professional contacts.

G. To suggest instructional resources.

7. The regular faculty of the School of Health Occupations acts as a consulting body to facilitate the operation of the Learning Center.

8. A Coordinator of the Learning Center, or someone designated to act in that capacity, has responsibility for the activities of the Center under the supervision of the Director of the School of Health Occupations. The role of the Coordinator shall include the following:

A. Participating as a member of the faculty of the School of Health Occupations with voice but no vote in decisions regarding the primary programs in the health occupations.

B. Consulting with the faculty about matters pertaining to proposed educational offerings in the Center and keeping them informed of activities.

C. Coordinating all activities of the Center.

D. Taking the initiative for investigating the learning needs in the health occupations at the vocational level through contacts with employing agencies, workers, supervisory health care personnel, and governmental and professional associations with relevant interests.

E. Establishing a planning committee for each program.

F. Serving as a member of all committees involving Center activities.

G. Acting as a liaison officer with other educational and health care agencies.

H. Serving as an expediter to plan and implement programs.

I. Selecting applicants for admission to programs under the criteria established by planning committees.

J. Obtaining qualified instructional personnel and assisting them as necessary.

K. Maintaining records of all activities of the Center.

L. Continuously evaluating the effectiveness of the Center.

M. Acting as a counselor to learners to help them identify their learning needs and find learning resources available to them, either through short term courses or regular academic offerings.

N. Acting as a program director or instructor when her expertise is relevant to program objectives.

O. Consulting with the Director in matters pertaining to the budget for the Learning Center and investigating possible sources of funding.

P. Preparing interim and annual reports as necessary.

Q. Publicizing programs.

R. Acting to maintain the quality of educational offerings through consultation with instructors and assessment of program plans.

Suggestions for the qualifications for the position of Coordinator of the Learning Center shall be as follows:

A. A registered nurse, currently registered in the State of Indiana, and preferably with preparation at the master's level.

B. Certification as a vocational teacher by the Indiana State Board of Vocational Education.

C. A clinical area of expertise with appropriate experience.

D. Knowledge and experience in working with adult learners.

E. Knowledge and experience in continuing education.

F. Knowledge and experience in teaching methodologies and program planning.

G. Knowledge of health occupations at the vocational level and preferably with experience working with them.

H. Ability to work with groups in a leadership role.

I. Knowledge of advising techniques in career counseling and sincere interest in the growth and development of members of the health occupations.

J. Accuracy in maintaining records.

9. The following policies shall pertain to instructional personnel:

A. Instructional personnel for each program shall be selected on the basis of their educational preparation, their knowledge and expertise in the program area, their teaching skills, and their ability to work with adult learners.

B. Instructional personnel, other than guest lecturers, shall obtain certification as a vocational teacher by the Indiana State Board of Vocational Education as soon as the training schedule makes this feasible.

C. Salaries of instructional personnel are paid according to their educational and experiential background as outlined by School Corporation Board policies.

D. A Curriculum Vita [2] shall be on file for all instructional participants.

10. Tuition for programs shall be based on instructional costs, and care shall be taken that required textbooks or other materials are appropriate for the programs but kept as reasonable as possible.

11. Requests from any individual, association or agency for specific programs will be considered, and a decision to offer a program shall be based on verification of the learning need and the potential of the Learning Center to meet the need. The following factors shall be considered:

A. Views of supervisory personnel in agencies employing potential participants.

B. Views of potential participants.

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[2]See Appendix E.

C. Policies and rules of employing agencies and Indiana State or federal agencies which are applicable to the occupational group and the learning need.

D. Any relevant standards of health associations and accrediting bodies.

E. Adequacy of the educational resources of the Learning Center to meet the learning need effectively.

F. Number of potential participants.

G. Availability of other programs to meet the learning need. A program shall not duplicate an offering of another educational or health care facility unless the available offering is not adequate to meet the needs of the learners to be served. The Learning Center shall keep informed of educational offerings presented by local universities, hospitals, the Indiana Vocational Technical College and others in the area.

12. In the case of multiple requests for programs, priorities of scheduling will be determined on the basis of the program which meets more of the following criteria:

A. The program is urgently needed to assist health care facilities to meet licensing or accrediting standards.

B. The program is needed to assist workers to meet re-licensure or re-certification standards.

C. The offering of the program has the potential for contributing to an improved quality of care for patients.

D. Offering the instruction would help remove performance deficits of workers already employed in the occupational role.

E. A large number of workers need the educational experience. (Generally, the more workers needing the instruction, the more urgent the need.)

F. The learning need involves a group of workers without access to any other educational resources. (Generally, a minimum of 20 participants is needed to make the offering of a program feasible, but there may be mitigating circumstances.)

G. Offering the program would help reduce the instructional burden of health care facilities with limited educational resources.

H. The program reflects those learning needs which the workers view as important and involves instruction appropriate for the educational role.

I. The program reflects those learning needs which supervisory personnel view as important.

J. The Learning Center has the required educational resources to function effectively in the area of instruction.

K. The cost of conducting the program is within the budget of the Learning Center.

13. Program approval shall be obtained from any appropriate state authority or professional association where such approval is necessary for certification of the learning experience. Examples are as follows:

A. Indiana State Board of Health

B. Indiana State Board of Vocational Education

C. American Dietetic Association

D. Indiana Statewide Plan for Continuing Education in Nursing, Region 13

E. Association of Operating Room Technicians

F. Others as pertinent to occupational groups

14. A certificate of course completion shall be given to each participant who is successful in meeting program standards.

A. The Learning Center accepts the concept that all efforts of an individual already employed in the health occupations to acquire, maintain and develop the abilities, skills, knowledge and attitudes necessary to do his job or function more adequately is continuing education.

B. The continuing education unit (10 contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction and qualified instruction) shall be used in recording participation in programs for all those already employed in the health occupations. The continuing education units assigned to a program shall be recommended by the planning committee and approved by the Director of the School.

C. Continuing education units will not be awarded for those completing training programs prior to job entry unless they are making a transition from another health occupation.

D. If a program is developed to help participants meet re-licensure or re-certification procedures, applicable standards will be met, and the certificate of course completion shall be so designated.

E. Continuing education units for clinical practice hours will not be awarded unless established standards for the experience are met and supervision by qualified personnel is available. If standards are met, continuing education units may be awarded in the ratio of 1 continuing education unit to 20 clock hours of organized, supervised practice.

15. Each program offered shall meet the standards established by the Learning Center.

Evansville School of Health Occupations Learning Center

Guidelines for Program Planning, Implementation and Evaluation

1. A planning committee for each program shall be appointed by the coordinator of the Learning Center after conferring with the Director of the School. Members of a planning committee shall be chosen so that each of the following areas are represented:

   A. School of Health Occupations

   B. Health care agencies employing potential participants

   C. Learners or practitioners in the target occupational group

   D. Professional personnel supervising workers in the occupational group

   E. Instructional personnel with expertise in the program area

   F. All personnel who will supervise field experience if planned clinical practice is included in the program. These members are added after enrollment of participants.

2. The planning committee will be responsible for confirming the learning need, preparing a program proposal and subsequently participating in the planning, implementing and evaluating of the program under the leadership of the primary instructor.

3. A program proposal[3] shall reflect serious consideration given to the basis and level of the learning need, the purpose and nature of the proposed program, the participants to be served, the basis for admission and projection of the educational facilities and resources needed.

4. The proposal is reviewed by the Advisory Committee for Continued Learning. The final decision to offer the program is made by the Director of the School of Health Occupations.

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[3] See Appendix F.

5. Programs may be developed in a variety of formats depending on the objectives to be achieved, and they may be concerned with assisting learners in any of the following areas:

A. Acquiring new knowledge or skills in their occupational roles or in a specialized area of functioning in their roles

B. Acquiring new knowledge or skills to make a transition from one occupational setting to another

C. Re-training for their occupational roles to remove performance deficits or to restore competence after an absence from employment

D. Training to meet health care standards for their current roles

E. Training in basic short term courses for initial job entry

F. Changing attitudes or values

G. Acquiring knowledge or skills necessary to work effectively with co-workers and/or assume leadership responsibilities

H. Acquiring knowledge or skills necessary to function as a teacher of patients or co-workers

I. Implementing the application of knowledge to practice

J. Learning to assume responsibility for continued growth as a person and member of a health occupation

K. Understanding the scope and limitations of their occupational roles within the health care system

6. A fully detailed course outline is developed by the primary instructor and approved or modified as necessary on recommendation of the planning committee. The format of the course outline shall follow the pattern[4] approved by the Learning Center and shall incorporate the following standards:

A. Instruction shall be based on what the learners already know or can do.

B. Objectives shall be clearly stated in behavioral terms, made known to the learners and related to their need to know or do.

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[4]See Appendix G.

C. The content shall be appropriate for the level of the learners and for the achievement of the stated objectives.

D. Active participation of the learners shall be included as much as possible.

E. Teaching methodologies shall reflect variety and are selected with due concern for their educational effectiveness.

F. Learning resources and tools shall be identified or made available. A bibliography shall be included.

G. Clinical practice or laboratory practice, if included, shall be explicitly detailed with objectives, standards to be achieved, learning experiences, time required, place and supervisory personnel. A manual to direct clinical practice shall be prepared, and both learner and supervisor shall have copies.

H. The educational facilities and resources and the time allowed shall be adequate to enable the learners to achieve the stated objectives.

I. The instructor shall engage the learners in on-going self-evaluation of their progress.

7. A synopsis of the course outline[5] shall be prepared and copies provided for each participant so that each learner can be actively involved in the teaching and learning.

8. An application for shall be submitted by each applicant, and admission shall be based on priorities and standards established by the planning committee. Particular care should be taken to insure that the nature of the program and the level of instruction is appropriate to meet the learning needs of the applicant.

9. The instructor maintains attendance records[7] of students and instructional personnel.

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[5]See Appendix H.

[6]See Appendix I.

[7]See Appendix J.

10. Standards for successful completion of a program shall be determined and made known to the participants in advance.

A. If minimal criteria, such as attendance, are set, and there are no objective techniques of evaluation used, the reporting system will be based on "S" for satisfactory and "U" for unsatisfactory.

B. If program objectives and planning involve specific assessment of achievement, the instructor may use either the system described in A or a four point system based on "A" for excellent, "B" for good, and "C" for acceptable, and "U" for unacceptable.

C. If supervised clinical practice is included, a specific evaluation tool using a two point scale shall be devised based on the objectives and standards. The supervisor of the field experience completes this evaluation.

D. In any evaluation of student achievement, the standards must be clear, observations of performance must be adequate, and the learner must be actively involved in the assessment.

E. No uniform attendance requirement is established. In case of absence, an instructor may assign make-up work as necessary to insure that the learner has achieved the objectives of the class units missed. If absence is too extensive to make this feasible, the participant must be informed immediately.

11. Evaluation of the effectiveness of each program should be as complete as possible. Depending on the nature of the program, multiple approaches to evaluation should be used. Although the focus of evaluation will be on the specific objectives of the program, other aspects must be considered. Any, or all, of the following aspects may be pertinent to the evaluation:

A. Evaluation of the instruction by participants. A general form[8] is used, and the instructor adds any questions necessary to explore the effectiveness of specific aspects of the program. The instructor summarizes these and writes a brief resume on the Report of the Educational Program.[9]

B. Evaluation of teaching and learning by the instructor. This includes the assessment of the total instructional process, Problems encountered, and recommendations for further offerings. This evaluation is entered on the Report of the Program.

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[8]See Appendix K.

[9]See Appendix L.

C. Evaluation of the effect of the learning experience on work performance as perceived by work supervisors and learners. This information is obtained through discussion.

D. Evaluation of the total program by the planning committee to include the following areas:

(1) Achievement of program objectives
(2) Adequacy of learning experiences in classroom
(3) Adequacy of learning experiences in clinical practice
(4) Clarity of instructions for clinical practice
(5) Recommendations for improvement in classroom and field experience
(6) Effect of the learning experience on the job performance of participants
(7) Recommendations concerning future offerings of the program

This evaluation is written into the minutes of the meeting of the planning committee.

E. Assessment of the cost of conducting the program. This information is prepared on the Financial Report of the Program.[10]

F. Review of the program by the Advisory Committee for Continued Learning. This evaluation is written into the minutes of the meeting.

12. At the conclusion of the program the following records are prepared, or filed:

A. The Program is entered on the student's card file, Participant's Composite Instructional Record.[11] On the reverse side of this form guidance contacts are recorded.

B. A folder is set up for each student and filed alphabetically. The application for admission and any other pertinent data are included.

C. The program is assigned a code number based on the year, LC for "learning center" and a number for the chronological appearance of the program. Example: 1975 LC 1

D. A course packet is prepared for the program and filed by its code number. The following are included:

(1) Attendance record for learners and instructors
(2) Report of the Educational Program

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[10] See Appendix M.

[11] See Appendix N.

(3) Financial Report of the Program
(4) Synopsis of the Course Outline
(5) Full course outline

E. The program proposal is filed for future reference.

F. The Participants' Evaluations of the Educational Program are filed until the program is repeated.

The guidelines identified for the operation of the Learning Center will undobtedly require modifications after the testing period. Furthermore, they have been developed to facilitate the offering of a new level of education within the parameters of an existing educational system. For this reason, the guidelines and records could not be expected to meet the precise requirements of another agency establishing a similar program, just as the learning needs identified in the study would probably not reflect the learning needs of the same occupational groups functioning in another locality.

It is anticipated that the guidelines will be used to establish the Learning Center and to conduct seven educational offerings during the next school year based on the needs identified. The final revisions in the guidelines will be derived from those experiences.

The tools used for the identification of learning needs will also be revised in preparation for surveying the learning needs of other occupational groups in other occupational settings. Greater precision in the items and fewer free responses would facilitate the identification process. Also, some areas included in the questionnaires which contributed significantly to understanding the educational climate can be reduced or eliminated in future surveys. For example, items concerned with the extensive background data of the respondents elicit the kinds of information an instructor needs about the participants in a particular educational

program so that teaching and learning can be made relevant to the learners. The gathering of this kind of extensive information at the time of instruction will assume more importance than it would in preliminary survey efforts.

If the Learning Center operates effectively and makes a contribution to improved job performance in the area the School of Health Occupations serves, it can become a significant part of the total effort of preparing members of the health occupations at the vocational level to assume the responsibilities appropriate to their roles.

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APPENDIX

APPENDIX A

Background Information about the Samples of Licensed Practical Nurses

Facility	Age in years					Year grad. as P.N.[1]			Location of School[2]						Years in nursing before present job					
	18-30	31-40	41-50	51-60	60+	1960-1964	1965-1969	1970-1974	Ind.	Ky.	Neb.	Ill.	N.Y.	Tenn.	None	1 or less	2-5	6-9	10-13	14-18
Hospitals	48	16	16	8	0	5	15	65	83	1	1	0	0	0	51	13	20	1	1	2
Nursing homes	17	7	5	5	0	1	4	27	29	0	0	3	1	1	10	6	14	0	4	0

[1]Three in hospitals did not respond.
Two in nursing homes did not respond.

[2]Two in hospitals did not respond, and one was licensed by waiver.

Facility	Years in present job[3]				Source of supervision					Attendance at inservice			Attendance at outside programs[4]		
	1 or less	2-5	6-9	10-13	LPN	RN	Dr. RN	RN or none	RN or LPN	Often	Occas.	Never	Often	Occas.	Never
Hospitals	20	50	13	4	1	83	1	1	2	29	55	4	6	50	32
Nursing homes	13	20	1	0	3	24	5	0	2	8	26	0	3	19	9

[3]One in hospitals did not respons

[4]Three in nursing homes did not respond.

Appendix B

Background Data from Operating Room Technicians

AGE	
18 to 30	15
31 to 40	5
41 to 50	1
YEAR COMPLETED TRAINING TO BECOME OPERATING ROOM TECHNICIAN	
1961 to 1963	3
1967 to 1969	5
1970 to 1972	4
1973 to 1974	7
Apprenticeship	2
YEARS OF PREVIOUS EXPERIENCE	
None	15
Less than one year	1
1 to 2	2
4 to 5	1
No answer	2
LENGTH OF TIME IN PRESENT JOB BY YEARS	
One year or less	6
2 to 7	11
8 to 13	3
14 to 15	1
SCOPE OF JOB	
Scrub for operations	11
Scrub and circulate	10
SUPERVISOR OF WORK	
Registered nurse	18
Doctor and R.N.	3
ATTENDANCE AT INSERVICE GIVEN BY EMPLOYER	
Often	7
Occasionally	14
ATTENDANCE AT CONTINUING EDUCATION PROGRAMS OFFERED BY OUTSIDE AGENCIES	
Often	3
Occasionally	8
Never	10

APPENDIX C

Background Information about the Samples of Nurse Aides

Facility	Age in years						Level of education by grade or years[1]								Years in present job					
	18-30	31-40	41-50	51-60	Over 60	No ans.	8th gr. or less	9th to 11th gr.	H.S. grad.	GED	College (yrs.) 1	2	3	4	No ans.	1 or less	2-7	8-13	14-19	Over 20	No ans.
Hospitals	83	23	33	47	8	1	3	29	134	2	7	6	1	7	6	53	84	42	14	2	0
Nursing homes	91	34	30	19	9	0	18	50	87	1	8	4	2	1	8	123	43	13	3	0	1

[1]One in nursing homes still in college and three still in high school.

Facility	Years in nursing before present job							Source of supervision[2]								Attendance at inservice[3]			Attendance at outside programs[4]		
	None	1 or less	2-7	8-13	14-19	over 20	No ans.	LPN	RN	Dr.	Dr. + RN	RN + LPN	No one	RN, LPN or No one	Dr. RN LPN	Tech.	Often	Occ.	Never	Often	Occ.	Never
Hospitals	111	16	55	8	1	3	1	1	140	1	9	37	0	1	2	4	34	129	28	2	59	125
Nursing homes	89	26	40	17	1	2	8	59	41	0	0	65	3	0	6	3	56	96	18	Not valid data		

[2]Medicine aides in nursing homes classified as technicians.
Six in nursing homes did not respond.

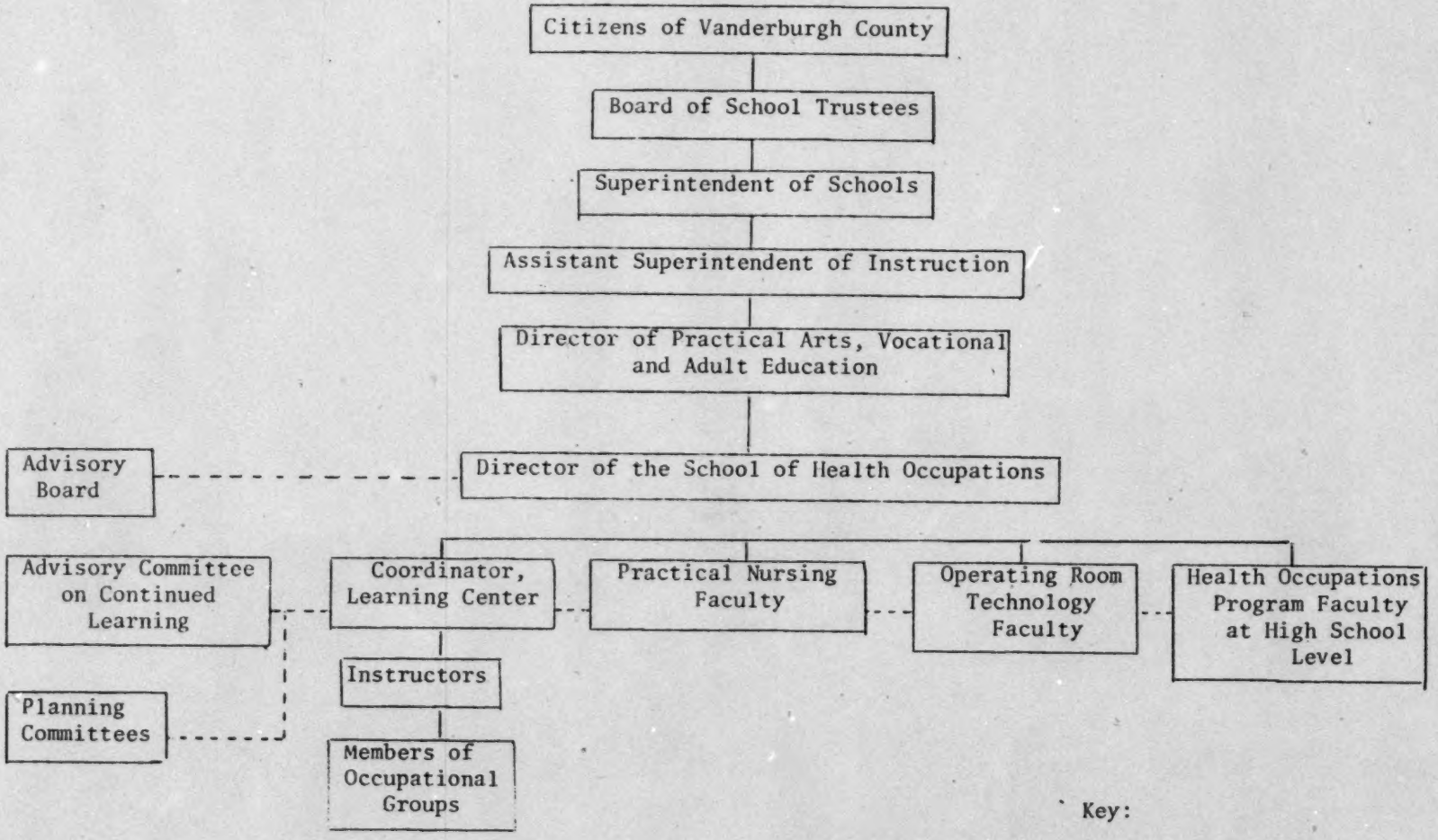
[3]Five hospital aides did not respond.
13 nursing home aides did not respond.

[4]Data for nursing homes not considered valid.
Nine in hospital did not respond.

APPENDIX D

Evansville School of Health Occupations

ORGANIZATIONAL CHART FOR THE LEARNING CENTER



Evansville School of Health Occupations
REQUEST FOR CURRICULUM VITA FOR PARTICIPATION IN
INSTRUCTIONAL PROGRAMS

Social Security Number: _____-____-_____

Name: _____
Last First Middle or Maiden

Address: _____ Birthdate _____

Phone: _____ Professional registration: Type_____ No. _____

Membership in professional associations _____

Honors, publications, special areas of expertise: _____

_____

Educational Preparation

	Years	Name and Location of Institution	Date of Completion	Degree or Credit Earned
High School				
College or University				
Other				

College Major:

Occupational Experience

Name of Firm	Position	City or Town	Number of Months	Beginning Date	Ending Date

PARTICIPATION IN LEARNING CENTER PROGRAMS
(To be completed by School of Health Occupations Learning Center)

Date	Code No.	Program Title	Instructional Role	Salary	Hours

Certification as vocational teacher by the Indiana State Board of Vocational Education:

APPENDIX F

Evansville School of Health Occupations Learning Center
PROGRAM PROPOSAL

Date _____ Chairman of planning committee _____

Sponsoring agency or agencies _____

Title of program _____

Basis of learning need _____

_____

Occupational group to be served and level of instruction _____

_____

Purpose of program _____

_____

Brief proposed course description _____

_____

_____

Number of participants _____ Priorities of admission _____

_____

Standards for admission _____

_____

Suggested class hours _____ Suggested clinical practice hours _____

Suggested class schedule _____ Starting date _____

Facilities needed _____

_____

Probable educational resources needed _____

_____

Approval needed _____

_____

Suggested CEU's _____

Suggested instructor _____

APPENDIX G

Evansville School of Health Occupations Learning Center
FORMAT FOR COURSE OR PROGRAM OUTLINE

Title _____ Dates offered _____

Principal instructor _____ Total hours of instruction _____

Date and hours	Major Goals (To assist the student to:)	Behavioral Objectives (The student will be able to:)	Learning Experiences	Evaluation Techniques

APPENDIX H

Evansville School of Health Occupations Learning Center
FORMAT FOR SYNOPSIS OF COURSE OUTLINE

TITLE OF PROGRAM _____ DATE STARTED _____

PRINCIPAL INSTRUCTOR _____ DATE ENDING _____

SPONSORING AGENCY OR AGENCIES _____

PARTICIPANTS AND LEVEL OF INSTRUCTION _____

_____

GENERAL PURPOSE OF THE PROGRAM _____

_____

OBJECTIVES _____

_____

_____

_____

_____

CLASSES: Time _____ Place _____ Total hours _____

Text or other required materials _____

Schedule of meetings _____

Resume of content of each class (Use as much space as needed)

CLINICAL PRACTICE OR LABORATORY PRACTICE (IF INCLUDED) (Use as much space as needed)

Time, place, hours:

Supervisory personnel:

Objectives:

Standards of performance:

Directions for learning experiences:

Techniques of evaluation: (If an individual performance evaluation form is used, students should have a copy or access to it.)

CRITERIA FOR SUCCESSFUL COURSE COMPLETION:

APPENDIX I

Evansville School of Health Occupations Learning Center
1900 Stringtown Rd., Evansville, Indiana 47711

APPLICATION FOR ADMISSION

Date _____

NAME: Mr. Mrs. Miss _____ Date of Birth _____
(last) (first) (middle)

ADDRESS: _____ Phone _____
(number) (street)

_____ Soc. Sec. Number _____
(city) (state) (zip)

High School _____ Graduate? Yes ___ No ___
(name) (city)

If you did not graduate from high school, do you have a GED certificate? Yes ___ No ___

College _____ Graduate? Yes ___ No ___
(name) (city)

College program taken _____

Special training: Course taken _____

From what agency _____
(name) (city)

Date completed _____

LPN ___ RN ___ ORT ___ NURSE AIDE ___ OTHER(Specify) _____

Employer _____
(name) (address)

Give your job title, or describe what you do _____

_____

Name of your immediate supervisor on the job _____

If you are in nursing, indicate the kind of patients you work with _____

_____

How many years of experience have you had in your present type of work? _____

If you are returning to work after a period of unemployment, indicate how long you did not work _____

NAME OF COURSE IN WHICH YOU WISH TO ENROLL _____

WHO IS RESPONSIBLE FOR PAYING YOUR TUITION? _____

PLEASE STATE WHY YOU WANT TO ENROLL IN THIS COURSE _____

_____

APPENDIX J

EVANSVILLE SCHOOL OF HEALTH OCCUPATIONS

Instructional Record

Course Title _____ Date Class Started _____

Primary Instructor _____ Date Class Ended _____

Total Class Hours _____ Class Schedule _____

Was an individual evaluation of performance used for each student? Yes ____ No ____ Total Enrollment _____

Class Code No:

Participants (Last Name First)	Fee Paid	Dates of Classes 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	Comments	Grade
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

Mark Attendance for Each Class

INSTRUCTOR RECORD

Indicate date of each class and record the name of the instructor and/or instructional resource personnel for each class and hours taught.

Date	Name	Hours

Total Hours Taught

Primary instructor _____

Resource person _____

Resource person _____

Resource person _____

Resource person _____

Evansville School of Health Occupations Learning Center

PARTICIPANT'S EVALUATION OF EDUCATIONAL PROGRAM

PROGRAM TITLE _____ DATE _____

YOUR POSITION: RN___ LPN___ NURSE AIDE___ OTHER (specify) _____

INSTRUCTIONS: Please read before answering questions.
Please be open and candid in your appraisal of the program you are just completing Your responses will be completely anonymous. Some of the questions may not be pertinent to this particular program. Answer only those questions which apply. In the column at the right place an "X" in the space which best reflects your opinion about the question posed. The key is as follows:
UN means unsatisfactory; SAT means adequate; G means good, above average.
If a "write in" response is required, please be as brief and clear as you can.

AREA TO BE EVALUATED	UN	SAT	G
1. Was the time of the meetings convenient?			
2. Were the facilities for the meeting (room etc.) adequate?			
3. Were the communications of the leader clear and effective?			
4. Were the contributions of guest speakers (if any) valuable?			
5. Were the instructional methods effective?			
6. Did you have enough opportunity to discuss and ask questions?			
7. Did teaching aids (films, slides, handouts, etc., if used) contribute significantly to your learning?			
8. If group work, or laboratory work, or supervised practice were a part of this program, did you find this a good learning experience? If unsatisfactory, please indicate the problem: _____			
9. Was the content organized and relevant to what you wanted to know?			
10. Will what you learned help you on your job?			
11. Were the objectives set for the program achieved? If unsatisfactory, please indicate the problem: _____			
12. Was the level of presentation of material appropriate for you? If unsatisfactory, please check: The content was: already familiar ___ too simple ____ too advanced ___ not relevant to me ___.			

13. Please describe how you think this learning experience will effect what you do on the job.

14. What other learning opportunities do you feel you need to do your job effectively?

15. Make any comments or suggestions about the program you wish.

Use the reverse side if necessary.

Evansville School of Health Occupations Learning Center
REPORT OF EDUCATIONAL PROGRAM

TITLE OF PROGRAM _____ CODE NO. ____

DATE STARTED _____ DATE ENDED _____ NUMBER OF PARTICIPANTS _____

COOPERATING AGENCY (if any) _____

LOCATION OF PROGRAM _____

INSTRUCTIONAL HOURS: Class presentation ___ ___ Clinical supervision _____

Other _____

CLASSIFICATION OF PROGRAM: Professional _____ Vocational-technical _____

Liberal education _____ Job entry _____ Job re-training _____

Role maintenance _____ Role advancement _____

INSTRUCTIONAL LEVEL: Introductory ____ Intermediate ____ Advanced ____ Open _____

TYPE OF PARTICIPANTS: RN ____ LPN ____ NURSE AIDE ____ OTHER (specify) _____

PRIMARY INSTRUCTOR (Course director) _____

CONSULTANTS, GUESTS, PARTICIPATING CLINICAL INSTRUCTORS _____

_____

_____

COURSE DESCRIPTION _____

_____

_____

TEXTBOOK USED: _____

FORMAT OF PROGRAM (Include teaching methods, educational resources) _____

_____

_____

_____

_____

CONTINUING EDUCATION UNITS AWARDED _____ APPROVED BY _____ DATE _____

EVALUATION OF THE INSTRUCTIONAL PROCESS BY THE PRIMARY INSTRUCTOR: Include a resume of the degree to which instructional objectives were achieved, the adequacy of the instructional plan and resources, problems of implementation, and recommendations.

BRIEF RESUME OF THE EVALUATION OF THE EFFECTIVENESS OF THE PROGRAM MADE BY PARTICIPANTS:

Evansville School of Health Occupations Learning Center

FINANCIAL REPORT OF PROGRAM

COURSE CODE: _____

COURSE TITLE: _____
Instructor: _____
Date Began: _____
Date Ended: _____
Total Hours: _____

TOTAL CHARGES TO STUDENT: _____

Tuition _____
Books _____
Other _____

TOTAL RECEIPTS: _____

BOOK LIST:

JUSTIFICATION OF CHARGES:

Purchase of books and instructional materials: _____

Instructor's salary (1122.1) _____

TOTAL _____

OTHER COSTS: Handouts, reference materials, etc.

TOTAL RECEIPTS _____ TOTAL DISBURS. _____ PROFIT:LOSS _____

APPENDIX N

Evansville School of Health Occupations Learning Center

PARTICIPANT'S COMPOSITE INSTRUCTIONAL RECORD

Name _____ Position _____

Address _____ Phone _____

Date	Program	Code No.	Class Hours	Practice Hours	Achievement	CEU

"5x8 file card"